Appendix A

POWER VEGETATION MANAGEMENT PROJECT
RESPONSE TO COMMENTS

Comments Received During 30-day Comment Period for Draft EA

Commentator: Biodiversity Conservation Alliance

Comment ID	**Comment Text** (verbatim unless otherwise noted; condensed where "…" appears)	Response
BA 1	We request that the USFS abandon the proposed Power timber sale and instead focus on meeting requirements to manage for native species and their habitat on the BHNF, like getting the Phase II amendment completed.	The Power project is part of the 5-year action plan. It was developed to follow the Revised Black Hills National Forest Plan and Phase I Amendment. Rationale for the decision is in the Decision Notice.
BA 2	Based on the proposal outlined in the DEA, it is clear that the USFS must prepare an environmental impact statement (EIS) for the Power Timber Sale…It is an action that normally requires such a statement. Very recently, the USFS disclosed its intent to complete an EIS for actions in the Prairie Project Area, located on the Mystic District of the BHNF. The actions proposed for the Prairie Project area appear to be very similar to those proposed as the Power Timber Sale.	The Responsible Official has found that the information in the Power EA supports a Finding of No-Significant Impact. Use of an Environmental Impact Statement for another project does not set precedence for other projects that may include timber sales.
BA 3	The DEA states on page 41 that, "CMAI requirements apply to the regeneration harvests, other proposed treatments are not subject to these requirements." This statement is erroneous.	The National Forest Management Act, at 16 U.S.C. 1604(m)(2), allows exceptions to the general prohibition on harvesting trees prior to the culmination of mean annual increment for a given timber stand. Both alternatives create exceptions consistent with the law at part (m)(2) with the following treatments: precommercial thinning, commercial thinning, hardwood restoration, and meadow restoration. Alternative A creates exceptions with the patch cuts because they are specifically intended to meet wildlife objectives.

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BA 4	We are unable to find in the DEA any analysis of the impacts of the Power timber sale to ponderosa pine habitat. For instance, the DEA discloses that 3,009 acres of ponderosa pine in structural stage 4C exists in the timber sale area, yet the DEA fails to disclose how much SS4C will result for each alternative.	The EA contains this information within the Forest Vegetation discussion in Chapter Three. The Proposed Action and Alternative A would both result in 1,755 acres of SS4C ponderosa pine within the project area once the project is completed.
BA 5	What is the significance of the effects of the timber sale to ponderosa pine in SS4C?	Acreage of ponderosa pine cover type in structural stage 4C will be reduced from 3,009 acres to 1,755 acres, primarily due to commercial thinning. Commercial thinning is intended to have positive effects on stands by concentrating resources to fewer trees and improving growth and vigor. These effects are described in the Forest Vegetation section of the EA.
BA 6	We can find no analysis or assessment of the impacts of the Power timber sale to the distribution of forest vegetation. This is a glaring omission since the USFS is required to ensure wildlife habitat is well distributed.	This comment addresses (1) forest vegetation distribution, and (2) wildlife habitat. The EA includes several charts, maps and discussions about the distribution of vegetation and habitats. Maps of structural stage distribution were used in the analysis and are on file at the Northern Hills Ranger District office.
BA 7	The cumulative effects discussion is also entirely lacking. The DEIS discloses that no ponderosa pine in SS5 exists in the timber sale area…The lack of old-growth is a potentially significant impact. The USFS appears to believe that the lack of old growth is an irreversible and irretrievable consequence of past activities and therefore an impact that cannot possibly be mitigated by the present timber sale…We fully expect the USFS to analyze and assess how the Power timber sale, in harvesting stands of ponderosa pine in SS 4C, 4B and 4A will affect the future abundance of old-growth.	No Structural Stage 5 stands exist in the area at this time and none would be affected by this project. Designated late-successional areas are being left untreated and are expected to provide future late-succession areas, as intended by the Revised Forest Plan. The EA discusses the past effects on old-growth. Most of the treatments maintain current structural stages, but are intended to make the stands more resilient and healthy.

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BA 8	We ask the Forest Service to fully explain the assertion in the DEA that, "thinning from below would encourage the development of late-successional habitat (page 38). We find it hard to believe that logging can help turn a stand into old-growth, especially given that thinning artificially reduces the availability of green trees for future snag recruitment, for future down woody debris placement, and the fact that it reduces the overall density of the stand, leading to increases in microclimate temperature, solar exposure, and alterations in the forest floor cover.	The EA states: "Commercial thinning treatments would give the largest, best-formed trees in the stand more room to grow (2,420 acres). After treatment, basal area per acre would range from 50-80 square feet. Where pine seedlings and saplings are crowded, precommercial thinning would take place to reduce the number of stems and increase growth rates. Thinning would reduce susceptibility to insects and disease, reduce fuel hazard, and increase growth and vigor. Without natural disturbance, unthinned ponderosa pine stands can stagnate, reducing the chance that large-diameter trees will develop. Proposed thinning would increase the chance that stands composed of relatively small-diameter trees will develop a substantial number of trees greater than 20" in diameter." Retention of all trees over 20 inches in diameter will mitigate for the current low snag density. Much of the thinning is not intense enough to change stand structure. Future logging of these stands is beyond the reasonably foreseeable future. The Revised Forest Plan addresses the desired future condition in terms of old-growth.
BA 9	The DEA also states, "Thousands of acres of dense, mature forest remains even after all previous and proposed treatments are considered" (p.41). Where did the USFS come up with this statement…Over what area does this "thousands of acres" exist?	This statement has been edited to provide more clarity (see Tables 7-9). Total acreage in structural stage 4C currently is 3,352 within the project area. This would be decreased to 2,098 acres following harvest in the Proposed Action and Alternative C.
BA 10	It is entirely likely then, that past activities, including logging and thinning, have reduced the amount of spruce habitat, yet there is no attempt to analyze or assess these cumulative effects. The USFS fails to disclose whether past timber sales or other activities have affected spruce habitat.	Spruce stands are not directly affected. Indirect and cumulative effects on wildlife species that may be dependent on spruce habitat are discussed in the EA, wildlife report and BE.

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BA 11	Finally, the cumulative effects of livestock grazing to forest vegetation are entirely ignored. It is entirely evident that livestock grazing on the Black Hills affects ponderosa pine condition and this must be addressed…	Effects of livestock grazing on vegetation as it relates to wildlife habitats is included in cumulative effects discussions throughout the EA and in wildlife report and BE. Livestock grazing is also addressed in the Soils and Water discussions. Damage to forest vegetation from cattle was not observed in the Power area.
BA 12	The USFS states, "The Proposed Action and Alternative A would reduce fuel accumulations and fire severity in the event of a wildfire" (p.45). This statement is wholly unsubstantiated…While we would usually ask the USFS to provide information and analysis supporting the claim that timber harvesting or other silvicultural activities will do anything to affect wildfire behavior, we know that none exists. In this case, we request the USFS just quit lying and quit justifying timber sales under the guise of wildfire control.	The EA describes how commercial thinning would result in fuel models that are more like historic fire regimes, and that reduced density would reduce risk of insect and disease, which in turn reduces potential for damaging wildfire. This is further substantiated by a recently released paper: Modifying Wildfire Behavior – The Effectiveness of Fuel Treatments, by Henry Carey and Martha Schumann (April 2003). Carey and Shumann found several examples of reduced fire severity in areas where mechanical treatment (thinning) in combination with prescribed burning had occurred. They disclosed that most studies of the interaction between commercial harvest and fire behavior focused on the detrimental impacts of slash residues. The authors found a study from 1988, using the BEHAVE model, where slash treatments after logging provided a "significant reduction in the potential for extreme fire behavior following logging." The paper also concludes that "removal of large trees rather than small trees" could increase fire hazard. This project primarily thins from below, and thinning of small trees is part of all prescriptions, including overstory removals.

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BA 13	The USFS states for both the black-backed and three toed woodpeckers that, "Over 100,000 acres of the Black Hills have burned in the past three years (2000-2002). This has created extensive habitat for the species (pp. 61, 62). However, this statement is contradicted by existing research. For instance, Mohren (2002) could find no three-toed woodpeckers in any burned areas of the BHNF. He attributed this to the fact that none of the fires that have recently burned in the Black Hills were near any spruce or aspen habitats being used by this species… Additionally, it has been determined that black-backed woodpecker only exploit burned areas for 2-3 years after fires (Murphy and Lehnhausen 1998). It has also been shown that post-fire salvage logging adversely affects black-backed woodpecker (Hutto 1995, Saab and Dudley 1998). In light of these findings, it is apparent that existing burned areas on the BHNF have not created extensive habitat for the black-backed woodpecker. Not only have these areas experienced salvage logging, which is detrimental to this species, but due to the species' habitat preferences, these fires have either lost or are quickly losing their value to the black-backed woodpecker. This situation must be fully addressed…	The BE and EA have been revised and clarify the fact that burned areas are not providing increased habitat for three-toed woodpeckers. The BE and EA state that the increase in habitat for black-backed woodpecker created by recent fires would last several years. Black-backed woodpeckers were found to still be using the Jasper fire area during the most recent bird surveys in 2002. The BE discloses that post-fire salvage logging may indeed be detrimental to black-backed woodpecker habitat.

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BA 14	In analyzing and assessing the impacts to black-backed, three-toed, and Lewis's woodpeckers, the USFS must fully address research that has shown insect outbreak suppression, as well as fire suppression, is detrimental to this species (see e.g. Murphy and Lehnhausen 1998, Saab and Dudley 1998, Imbeau and Desrochers 2002, Saab and Vierling 2002, Mohren 2002). This is especially important given that these woodpeckers have been greatly impacted by past and present efforts to control insect outbreaks and suppress and/or otherwise control fire. Mohren (2002) states, "Allowing stands to mature and become decadent will help provide foraging habitat for black-backed and three-toed woodpeckers. Creating stands that become susceptible to wood-boring beetles will provide for an abundance of prey for both these species. Also, Allowing large areas to become infested with wood-boring beetles…may let black-backed and three-toed woodpeckers increase population size.	The BE and EA disclose that the action alternatives hinder the development of woodpecker habitat by reducing fire hazard and suppressing both fires and beetle outbreaks. The Revised Forest Plan and Phase I Amendment does not include management objectives to create stands that become susceptible to wood-boring beetles, or to allow large areas to become infested with wood-boring beetles.
BA 15	There is every reason to conclude the Phase I Amendment and current FS management is contributing to the extirpation of the northern goshawk.	The Phase I Amendment is intended to adequately protect the northern goshawk and is current management direction. The Power project was developed to follow the Phase I Amendment.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
BA 16	There is currently no old-growth in the timber sale area, meaning no suitable goshawk nesting habitat exists…Experts have noted that the lack of nesting habitat on the Black Hills is limiting the goshawk population. How can the USFS possibly believe that providing more foraging habitat will benefit the goshawk while it continues to log and otherwise degrade nesting habitat?	Suitable nesting habitat does exist in the project area. The EA states that "The action alternatives would cut some stands that may be suitable nesting habitat, but would retain this habitat in gaps between known territories, where nests are most likely to exist." The wildlife report states, "The Forest Plan Final EIS BA/BE identified ponderosa pine structural stages 4C and 5 (i.e., dense mature forests and old growth), at least 25 to 30 acres in size, as likely affording the best nesting habitat for goshawks in the Black Hills. Squires (cited in Expert Interview Summary for the Phase I Amendment) confirmed that areas with high canopy closure, big trees, open forest floor, and moderate slopes are most "typical" nest stands. However, he also indicated that goshawks are not restricted to nesting in these stands and could use stands with lower canopy cover as well, such as structural stage 4B. Reynolds cautioned against using habitat data where known goshawks are nesting to extrapolate a definition of good nesting habitat. Goshawks exhibit high site fidelity and may use lower quality habitat but not produce young."
BA 17	We also ask that the USFS analyze and assess the impacts of the Power timber sale in terms of the distinct possibility that the [goshawk] may be listed under the Endangered Species Act…The USFS must consider the fact that: 1) A federal court is still reviewing whether or not the Fish and Wildlife Service erred in concluding the northern goshawk west of the 100th Meridian did not warrant listing and 2) That any continued impacts to the northern goshawk and its habitat on the BHNF will be documented and sent to the US Fish and Wildlife Service to add to the record supporting listing of this imminently threatened forest raptor.	The analysis of the impact of the Power project to the Northern Goshawk is discussed in the EA. The information in the document is based on the current status of the Northern Goshawk as a Region 2 Sensitive Species. If the court determines that the USFWS erred in it's finding and the species becomes listed, the species will then be addressed through a Biological Assessment for future projects.

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BA 18	The USFS must recognize that fringe-tailed myotis is an endemic subspecies (*Myotis thysanodes pahasapensis)* that exists only in the Black Hills (Hall et al. 2002)…Recent studies of bat species have shown a distinct preference for old-growth stands, which typically contain abundant snags (see e.g. Mattson et al. 1996). The DEA fails to acknowledge these habitat components and therefore fails to adequately analyze and assess the impacts to the fringe-tailed myotis.	The BE recognized that this is an endemic subspecies. As stated in the BE and EA, this species uses mines and caves as hibernacula and roosts, and further states that the species will use snags as roosts. Effects to snags and leave trees are addressed in the BE and EA.
BA19	[The Forest Service] must fully analyze and assess the…effects to flammulated owls and its habitat…Given the species' rare status throughout its range, its dependence upon old-growth ponderosa pine, and the fact that this species' existence has only recently been confirmed on the BHNF, there is significant concern over the impacts of forest management activities to this species and its habitat.	Effects to flammulated owls and their habitat have been analyzed and addressed in the EA.
BA 20	[T]he USFS neither provides nor references any hard population trend data for the brown creeper, a management indicator species, to support the analysis and assessment in the DEA. This is especially disheartening, especially given recent court rulings (see e.g. Forest Guardians et al. v. United States Forest Service, U.S. District Court, District of New Mexico, No. CV 00-714 JP/KPM-ACE)…How can the USFS possibly proceed with the Power timber sale unless it has hard population data for the brown creeper? Does the USFS believe it is above the law?	The brown creeper is discussed in the wildlife report and EA. The analysis was based on current available information. The EA states that there is no local population trend data, however the regional population trend is upward.

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BA 21	We question how the USFS determined that 10,147 acres of brown creeper habitat exists. Despite the fact that habitat will be reduced from 10,147 acres to 7,576 acres, there is no context provided for this reduction in habitat.	The original figures were based on all dense stands but these figures were revised to focus on dense, *mature* stands. The EA states, "Dense, mature conifer stands would decrease from 3,352 acres to 2,098 acres (-37%) under both action alternatives. The EA further states that snag mitigation in both action alternatives would prevent detrimental effects."
BA 22	We cannot find any discussion of the impacts of the Power timber sale to *Vertigo arthuri, Vertigo paradoxa, Catinella gelida, Oreohelix* n. sp. 1 and n. sp. 2.	The analysis focused on Federally-listed, Sensitive and Management Indicator Species, which does not include these species. Phase I Amendment direction is to protect all identified colonies of 7 snail species (2 which are Sensitive). No snail colonies have been identified in the Power project area. Mitigation is included in all action alternatives to protect previously unidentified snail colonies, should any be found.
BA 23	[The Forest Service] must fully analyze and assess the…effects to northern flying squirrel.	Northern flying squirrel is not a Federally listed, Forest Service Sensitive, or Management Indicator Species. The analysis discusses effects to mature forest habitats, including snags that are important for this species.
BA 24	[The Forest Service] must fully analyze and assess the…effects to black bear and its habitat.	Black bear is not a Federally listed, Forest Service Sensitive, or Management Indicator Species. Black bear was removed from the Management Indicator Species list under the Phase I Amendment due to lack of a confirmed breeding population in the Black Hills
BA 25	We also request the USFS analyze and assess the impacts to the sharp-shinned hawk, Cooper's hawk, American kestrel…Recent monitoring suggests these species have declined on the BHNF, an even most likely attributable to extremely low snag densities throughout the BHNF and the lack of late successional habitat. The Forest Service must ensure the Power timber sale does not lead to further population declines in these species…	Sharp-shinned hawk, Cooper's hawk, and American kestrel are not Federally listed, Forest Service Sensitive, or Management Indicator Species. These species are being monitored through the Monitoring Birds of the Black Hills project. Snag protection standards are being followed as outlined in the Phase I Amendment.

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BA 26	We also request the USFS analyze and assess the impacts to American dipper…The FS must ensure that the Power timber sale does not further degrade dipper habitat, both in the timber sale area and downstream of the area, and ensure the viability of the dipper is not further jeopardized.	The EA discloses that no effects to American Dipper are expected.
BA 27	The DEA discloses that, "it is the 107 acres of shelterwood seed tree harvest with dispersed skidding in the Proposed Action…and the same 107 acres and 131 acres of patch clearcuts with dispersed skidding in Alternative A that poses a risk of exceeding the 15% standard" (p. 77)…Clearly the impacts to soils will be significant.	The EA has been clarified for this section. Skidding within shelterwood seed tree harvest and patch clear cuts may create detrimental soils conditions that would be counted against the 15%. Mitigation measures and monitoring are intended to ensure the standard is met. These units would be the primary focus of monitoring for this standard.
BA 28	The DEA discloses on page 66 that, "There are no open water sources or riparian areas in the project area." This is extremely hard to believe.	The EA states, "There are no perennial or intermittent streams in the project area, only grassy ephemeral channels that show little evidence of scour. Small pockets of riparian habitat scattered throughout the project area are associated with springs and seeps." None of these water sources are near or within the treatment units, so no impacts to water sources or riparian areas are anticipated.

Commentator: Native Ecosystems Council

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
NEC 1	You are implementing goshawk guidelines which differ considerably from the current published recommendations by Reynolds and others…Changes include calling openings larger than 1-2 acre goshawk habitat, a huge reduction in the diameters per the 6 structural stages, a reduction in the amount of older structural stages for the post-fledgling area, and a lack of management of foraging habitat.	Phase I Amendment standards and guidelines for goshawk are based on Reynolds et al. *Management Recommendations for the Northern Goshawk*. The goshawk conservation strategies proposed for the Power project do not differ from Reynolds' management recommendations. One to two acre openings in goshawk PFA's are desired habitat for goshawk prey species and follow Reynolds' guidelines. In goshawk foraging areas, openings up to four acres are recommended. Therefore, including small openings as goshawk habitat is consistent with Reynolds' guidelines. The Proposed Action does not include creating any openings. Alternative A proposes some created openings of one to two acres. All other proposed treatments in both action alternatives will move the habitat in proposed PFA's closer to the desired vegetation structural stages than what currently exists. Likewise, management of foraging areas includes managing for a variety of forest conditions per Reynolds. This project does not deviate from Reynolds' recommendations in the DBH of trees in each VSS. There is no VSS 6 in the project area, so we can't include VSS 6 as part of either the nest areas or PFAs.
NEC 2	You have not talked about the population status of the goshawk in the general area of the project area.	The EA states, "Goshawk surveys were conducted in 2002, resulting in documentation of mature and young goshawks but no new nests."
NEC 3	You need to be providing snag densities by structural stage, and demonstrate how these densities will be affected by the proposed treatment. For example, how will the proposed harvest treatments reduce snag recruitment on those specific acres, and how will this affect landscape availability of snags.	Snag information and analysis indicates the analysis area is low on snags as compared to Phase I Amendment objectives and Standards and Guidelines. Retention of all trees 20 inches and above within both action alternatives adequately provides for recruitment across the area.

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NEC 4	You need to define the criteria by which significant impacts to snag-associated wildlife are based on.	The EA discloses that retention of all trees 20 inches are greater (along with other measures) meet the Revised Forest Plan Phase I Amendment S&Gs in terms of snag recruitment. The Finding of No Significant Impact discloses that no trend toward Federal listing is expected for any sensitive species as a result of the proposed activities.
NEC 5	You have not provided any monitoring data for the occurrence of management indicator and sensitive species in the project area…You have not addressed the current population trends for sensitive and MIS in the project area.	Population trends on a local and/or regional scale are disclosed to the extent that such data was available.
NEC 6	You have not identified any conservation strategies for MIS and sensitive species. If you have no habitat standards for these species, how do you measure current or expected habitat conditions? What criteria are you using to measure impacts, or to determine whether or not these impacts will be significant.	"Conservation strategies" are identified in project specific mitigation, the Revised Forest Plan and Phase I Amendment. Different criteria are used to measure impacts to different species. As an example, open road densities and habitat effectiveness values are used to measure impacts to deer and elk habitat; snag densities are used to measure impacts to snag dependent species; other quantitative measures are used such as number of acres of mature ponderosa pine existing, treated and left after treatment, for species that depend on mature forest. Mitigation measures are in place to avoid significant effects.
NEC 7	You have not provided any conclusions of logging impacts on sensitive and indicator species. All you do is summarize estimated declines in habitat. What will this do to local population persistence???	The EA, BE and Wildlife Report describes impacts from the project in detail. Habitat would be adequately protected and all applicable management direction would be followed.
NEC 8	You have completely ignored a significant public issue, or management of old-growth. It is not mapped in the area, and…we could not even understand you[r] description of what the Forest Plan requires.	No old-growth currently exists within the project area. Approximately 710 acres have been designated to provide future old-growth. Retention of these stands meets the Revised Forest Plan and Phase I Amendment requirements.

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NEC 9	You did not make the connection between old-growth in the project area and goshawk management. Aren't these being managed together, and if not, why not? We noted that no old-growth is located within the goshawk postfledgling areas, even though Reynolds and others recommend up to 29% old-growth for these 600-acre areas…Even though there is no old-growth within the 2 postfledgling areas, while Reynolds and others calls for up to 29% old-growth here, you have not indicated this is a problem.	Treatments in the proposed PFAs are designed to eventually meet the desired VSS distribution as described in Reynolds.
NEC 10	We are concerned about the loss of forest interior habitat. Please identify where it occurs in the project area, what species depend upon it, and how you will maintain viability for this suite of wildlife. How do you identify significant losses of interior habitat on wildlife?	Interior habitats were not specifically mentioned during scoping, nor were any standards and guidelines for interior habitat identified during a Forest Plan review. Interior habitats are addressed through analysis for Management Indicator Species that are associated with denser, mature forests. Significant effects are avoided through mitigation measures such as green tree and snag retention and maintenance of some dense stands.
NEC 11	You did not provide analysis as to how the planned level of habitat for the pine marten will affect their viability in this portion of the landscape.	All current American marten habitat, including connectivity habitat, will be maintained, and no effects on marten are expected. Following the Phase I Amendment is intended to provide for marten viability.
NEC 12	Please provide a large-scale map of the two goshawk areas identified in the EA. We would like to know, on a map, what the current structural stages are here, and where and what type of harvest is planned throughout the postfledgling areas.	Maps of these areas, along with structural stage descriptions are in the EA and wildlife report. Large-scale maps were prepared as needed and are in the project files.

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NEC 13	Please identify what the snag density is within each of the two postfledgling areas.	Stand exam info is available in the project record at the Northern Hills Ranger District office. Snag levels are low over the area as a whole, as disclosed in the wildlife report and in Chapter 3 of the EA, so all live 20-inch trees and larger (along with existing snags) are being retained. Revised Forest Plan direction is to analyze snag densities by watershed, which is what was done for this project area.
NEC 14	Please identify what level of forest thinning is considered as improvement of goshawk foraging habitat. What is considered too heavy of a canopy closure for foraging? What is the minimum level of canopy closure that is needed to maintain foraging? Please define what goshawk prey species are know to increase in areas of thinned forest on the Black Hills, and how this was determined.	The level of thinning depends on the structural stage objectives. In foraging areas, a canopy closure of 40% is preferred for mid-aged forest and 40% to 60% in mature and old forests. Openings are also desirable. The following publication is recommended to answer specific, detailed questions relating to goshawk biology and natural history: Patricia L Kennedy, 2003. *Northern Goshawk (Accipiter gentilis atricapillus), A Technical Conservation Assessment.* This document is accessible at www.fs.fed.us/r2/scp/species_assessments/northern_goshawk
NEC 15	What is the cumulative effects area for goshawk? What is the breeding history of goshawks in the cumulative effects area as per nest occupancy, nest success, and the long-term persistence of breeding territories?	The cumulative effects area is the watershed boundaries that make up the project area. This area is large enough to include two goshawk territories. There are no historic nests known within the project area. Current surveys resulted in no nest sites being found.
NEC 16	You indicated goshawk trends are up. Are they [at] historical levels, or are they below what would have naturally occurred?	No historic monitoring records are available; however the EA and Wildlife Report disclose that Breeding Bird Survey data indicates an upward trend.
NEC 17	What is the impact of a loss of 900 acres of goshawk nesting habitat in the cumulative effects area? What is the criteria by which you…identify whether or not significant cumulative effects have occurred, or will occur, to goshawks in this analysis area.	The EA discloses that a cumulative total of 900 acres of potential nesting habitat have been affected by logging, the current retention guidelines (all trees over 20 inches) and consistency with current guidelines in post-fledgling areas, ensure there will be no significant impacts.

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NEC 18	Since forest harvest will reduce the ability of stands to produce snags, and the area is already below recommended snag densities for the goshawk, why will thinning benefit goshawk foraging?	Adequate numbers of trees would be retained for snag recruitment. Thinning will increase the size and longevity of live leave trees.
NEC 19	The current snag density…is far below that recommended by Reynolds and others for the goshawk, as well as below the Forest Plan recommendation. If this isn't considered a significant impact on wildlife, then what type of snag conditions would be considered significant?	The current snag density is an existing condition and should not be defined as a direct impact of the project. This project is designed to improve snag density over time by retaining adequate numbers of trees for snag recruitment in all harvesting. No significant effects will occur to future snag density because sufficient numbers of snags are retained based on the Revised Forest Plan and Phase I Amendment Objectives, Standards and Guidelines.
NEC 20	Your guidelines require that no habitat changes occur to the goshawk as a result of commercial thinning…If you go from 60% to 40% canopy closure, you will fall below the minimum recommended by Reynolds and others. You need to show how you determined that these changing habitat conditions will not affect goshawk habitat…	The project retains adequate canopy cover to meet relevant guidelines.
NEC 21	Please map the pine marten habitat for the project area, including the structural stage, so that the public can understand where this habitat exists.	A map depicting American marten habitat is included in the BE and structural stage information and maps are on file at the Northern Hills Ranger District.
NEC 22	Please map the connecting corridors for pine marten habitat.	A map depicting connecting corridors along with other no-treat areas is in the BE and is on file at the Northern Hills Ranger District office.
NEC 23	Please define what amount of spruce habitat is necessary for local persistence and habitat needs of the pine marten, and identify whether these needs are being met in the project area. If they aren't, what about increasing spruce forests on spruce habitat?	The Phase I Amendment excludes vegetation management in spruce habitats. All existing habitat would be maintained.
NEC 24	Please map the old-growth and forest interior habitat in the project area before and after the planned treatment.	No SS 5 exists now, nor will any exist as a direct result of the treatments. Interior habitat was not identified as a scoping or Forest Plan issue, so it was not mapped.

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NEC 25	What criteria are you using to determine whether significant impacts have occurred in the project area on old-growth and forest interior wildlife?	No significant effects to old-growth will occur as part of this project. Stands identified as late succession in the Revised Forest Plan are being retained to provide for future old-growth. This project follows Revised Forest Plan and Phase I Amendment Standards and Guidelines relative to vegetation condition.
NEC 26	What will the open road density in the summer and fall be when the project is completed.	Road density pre-and post project is addressed in the Wildlife Report. Current road density is approximately 3.8 miles per square mile. The Proposed Action would reduce road density to 2.4 miles per square mile. Alternative A would reduce road density to 3.0 miles per square mile.
NEC 27	Please identify the level of hiding and thermal cover in the project area, both before and after logging.	The measurement used to determine impacts to deer and elk habitat is the habitat effectiveness value generated by the HABCAP model (Revised Forest Plan compliance). This model uses forage and cover, and the juxtaposition of forage and cover to determine habitat effectiveness. HABCAP values for all alternatives are disclosed in the wildlife report and EA.
NEC 28	What are the suspected problems with the current declining population of deer, and what is this based on? What is the current level of big game security in this area, and how is this affecting big game vulnerability?	As stated in the wildlife report, research efforts have been ongoing for several years to try to determine the causes of the declining deer populations. One suspected cause is lack of quality forage. Big game security is determined largely by open road density. Current open road density is very high in the project area, as stated in the wildlife report and is contributing to low habitat effectiveness and increased vulnerability. Both alternatives reduce road density, but Proposed Action has more positive impacts on habitat capability.
NEC 29	If local habitat is not needed in the project area for management indicator and sensitive species, how have you ensured that enough habitat will be distributed across the Forest to still meet their viability needs?	Local habitat is needed and provided in the project area for management indicator species. Habitat distribution across the forest is dealt with in the Forest Planning process.

Commentator: State of South Dakota Governor, M. Michael Rounds

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
Rounds 1	I believe the best course of action for the state of South Dakota is Alternative A. The completion of this action would meet the overall goals of the Black Hills Forest Management Plan and reduce fire hazards in a critical area.	Both the Proposed Action and Alternative A are designed to meet the goals and objectives of the Revised Forest Plan.
Rounds 2	It is important that no Forest Service system roads be closed. Local fire departments have been very concerned with Forest Service proposals that include closing roads. They were concerned with access when they need to fight wildfires. Alternative A is a compromise that will not close established system roads.	There is a need to maintain access for resource management but also to reduce road mileage to meet Revised Forest Plan Objectives, Standards and Guidelines. A roads analysis is available in the project file. System roads that are closed under the Proposed Action could be opened if needed for wildfire situations.
Rounds 3	The state also believes the implementation of Alternative A can be supported by a finding of "No Significant Impact" and should not require preparation of an Environmental Impact Statement (EIS). Preparation of an EIS will unduly slow the implementation of this project.	A Finding of No Significant Impact is included in the project Decision. An EIS will not be prepared.
Rounds 4	The Forest Service needs to work closely with all private landowners in the project area and with state, county and local agencies when undertaking projects that should be planned across jurisdictional boundaries. Wildfire hazards need to be minimized in the project area. This can be best done through joint efforts. We would like to see joint planning of all Forest Service projects-especially those that are in the Wildland-Urban Interface areas.	The Forest Service welcomes the opportunity to work with state, county, and local governments in addressing wildfire concerns.

Commentator: Black Hills Forest Resource Association

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
BHRA 1	…Objective 201's direction is to restore historic hardwood communities by 10 percent over 1995 conditions on sites capable of supporting these communities. We support managing for a vegetatively diverse landscape, including hardwood communities. However, we feel that the project analysis should clarify whether, in fact, an historic hardwood community existed, whether or not the site is capable of supporting hardwood communities in the long term. Incidentally, the most recent published FIA data (DeBlander, 2002) show that the Black Hills have quite vastly exceeded a forestwide 10 percent hardwood increase over 1995 conditions.	The intent of the project is to maintain the current acreage within the hardwood cover type by thinning and removing conifers. In the absence of disturbance, conifers would eventually occupy the site. Under natural disturbance regimes, hardwoods would likely persist over time. No cover type conversions are contemplated in this project. Corrections to Forest databases and updates from more current inventory efforts have resulted in more precise information on hardwood vegetation than was available with the 1995 database. This data correction accounts for some of the difference from the 1995 database.
BHRA 2	The project analysis should consider the importance of commercial and noncommercial silvicultural treatments in helping achieve Objective 206 and 217.	Objective 206 relates to vertical diversity and is being met with this project. This objective is addressed specifically within the Silviculturist's Specialist Report. Objective 217 is a general wildlife objective. Detailed discussion about effects on wildlife are in the EA, Wildlife Report and Biological Evaluation.
BHRA 3	We encourage the District to show a more significant reduction in the acreage of ponderosa pine stands at medium or high risk of mountain pine beetle infestation, per Objective 228.	The Revised Forest Plan directs forest management to reduce risk of loss to mountain pine beetles. The various action alternatives were developed based on the Revised Forest Plan and a growing concern with mountain pine beetle infestation. Not all acreage in medium to high risk of mountain pine beetle may be treated at this time due to multiple-use objectives and standards in the Revised Forest Plan and Phase I Amendment.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
BHRA 4	The project analysis should disclose and consider the importance of silvicultural treatments in helping generate revenue to help achieving Objectives 230, 231 and 232.	These objectives relate to noxious weeds management. While the purpose of this project is not revenue generation for noxious weed projects, selling a timber sale could create opportunities to accomplish these projects. The costs of the noxious weed treatments included in this project are estimated at approximately $23,000.
BHRA 5	The travel management proposals in the Proposed Action should comply with Objectives 309 and 421. We urge the District to ensure that access needed for fire suppression, future management, and recreational opportunities is not forgone through proposed closures.	By Forest Service Policy, non-system roads are to be added the system or closed. Most can be closed because there is adequate other access into the area. No special use permits are affected, and fire suppression needs can be achieved through other access. No recreation sites or special dispersed opportunities are affected. The non-system roads that provide access for special use permits or other essential activities are not proposed for closure at this time. They will eventually be added the system as funding allows. System roads that are closed under the Proposed Action could be opened if needed for wildfire situations.
BHRA 6	The project analysis should consider the importance of silvicultural treatments in achieving Goal 6, and the District should strive to achieve Objectives 601 and 602 in the pursuit of this goal.	Goal 6 was not identified as part of the Purpose and Need for this project. Economic efficiency of the project was considered in the analysis.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
BHRA 7	We understand that the project area does not meet Phase I Standards for snag density and that this forms the impetus for the institution of the 20-inch diameter limit in the Proposed Action…Be that as it may, we believe that programmatic diameter limits represent an aberration of the practice of forestry and silviculture, and have no place in integrated forest resource management under any circumstances. Furthermore, aerial survey data collected in 2001 on mountain pine beetle indicates significant activity in the area surrounding Power. We are therefore curious to know how the IDT can assert that snag abundance is lacking, given the extent of the damage and the inevitably increased mortality that has occurred since the time surveying was completed.	The snag analysis findings demonstrate that trees and snags greater than 20 inches are below Phase I Amendment Standards and Guidelines. Retaining these trees is intended to assure that numbers of future snag reach desired levels. The watershed-scale snag analysis is available for review in the project files. All potential treatment stands were visited in 2001 and 2002 and mortality was not significant in the area.
BHRA 8	There appears to be potential for conflict between the proposed summer and winter operating restrictions pertaining to timber harvest activities. That is, skidding would only occur when soil moisture is below the plastic limit or frozen, and log hauling schedules would avoid winter conflicts with popular snow-mobile trails…The Forest Service ought to take pains to make sure the project is operable throughout a reasonable portion of the season, given these restrictions.	The EA states, "Where possible, log hauling schedules would avoid conflicts with popular snowmobile routes. Winter operations of timber sale units that necessitate skidding across a snowmobile trail, but do not otherwise affect the trail, may be allowed." Also, the ground need not be frozen for skidding to occur, it may also be dry (except in areas where skidder disturbance is desired for site preparation).
BHRA 8	We encourage you to post interpretive signs along trails and roads pertaining forest management, and furthermore, volunteer our organization along with the South Dakota Society of American Foresters to assist in the development and installment of such signs.	The EA includes this design feature: "Interpretive signs may be placed along trails and heavily traveled roads to inform and educate the public about forest management activities." The BHRA and others are welcome to contact the Northern Hills Ranger District office to discuss potential partnerships.
BHRA 9	We also encourage you to ensure that active timber sale units are adequately identified to winter recreators through cautionary signing.	Cautionary signing is part of the standard timber sale contract.

Comment ID	**Comment Text** (verbatim unless otherwise noted; condensed where "…" appears)	Response
BHRA 10	With regard to soil and water monitoring and SD BMP's, we recommend that the Forest Service collect some measure of quantitative baseline (particulate size, turbidity) information in addition to its proposal to monitor these factors in the course of contracted activities.	Limited "implementation monitoring" has been proposed to assure that project design features and mitigation measures are followed. "Validation monitoring" of the type described in this comment may occur as part of the Monitoring Plan for the Revised Forest Plan.
BHRA 11	With regard to water yield increases commensurate with vegetative treatments, we believe it is erroneous to categorize them as immeasurable. We refer you to the research of Dr. Charles Troendle at the Rocky Mt. Research Station, particularly those findings in the Coon Creek watershed, and Upper East Fork of the Encampment River on the Medicine Bow-Routt National Forest.	The EA discloses that, "Increased water yield could be expected from the types of vegetation treatments proposed to meet Revised Forest Plan direction. These increases, however, would be transitory and unpredictable and would not likely result in more water availability when it is most needed (drought years, dry season). If water yield were substantially increased by vegetation management, there could be adverse effects to stream channel morphology from increased peak flows, " and, "Any increased yield caused by past timber harvest is likely returning to the base level as treated stands grow and fully occupy the sites."
BHRA 12	Almost never do we consider it accurate to describe the No Action Alternative as having no direct impacts. A more clear explanation of risk should be conveyed as it pertains to the inevitability of forest pathogen infestation and/or catastrophic wildfire events. Particularly this is true for the soil productivity, water and air quality, and late-succession habitat dependent wildlife portions of the analysis.	No Action would not have any direct impacts, but would have indirect impacts. The EA discusses the effects of No Action assuming no disturbance. The EA acknowledges that without action, increased densities would likely lead to increased forest pathogens and fire susceptibility.
BHRA 13	Though we clearly loathe the idea of "snag recruitment," the project analysis should at least reflect a beneficial impact on all snag dependent species.	Under the action alternatives, the number of trees available to develop as snags is reduced because of the trees that would be harvested. This is not a beneficial impact to snag dependent species. However, snag and green tree retention guidelines adequately mitigate for adverse impacts.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
BHRA 14	With regard to the Northern Goshawk impacts, we find it curious that, although all Action Alternatives move the Project Area's balance of structural stages toward the recommendation of Phase I Standard 3114, the species was still assessed as "May Be Impacted." On a related topic, we wonder why the Preferred Alternative does not meet Standard 3114 recommendations for structural stage distribution in PFA's 1, 2, and 3. The PFA's and the Project Area as a whole seem to contain an over-abundance of SS4B and 4C…	Any time habitat is being altered, the species that uses that habitat may be impacted. Neither action alternative meets the recommendations for structural stage distribution wholly, but do move the proposed PFA's closer to that desired distribution than what exists now. Given the existing condition and silvicultural opportunities in the area, the desired structural stage distribution in PFAs cannot be achieved all at once.
BHRA 15	We have some questions about the deferral of treatment in certain stands (Map 5) on the basis of Phase I pine marten guidance. What is the effectiveness of the "high occupancy potential" late-successional habitat currently present in the Project Area? Does it contain sufficient understory plant diversity to maintain prey species populations? Is it a safe assumption that this habitat will persist on the landscape until the next time the area is considered for treatment? Will the desired stand structural characteristics and microclimate exist indefinitely?…In general, we regard the expectation that a given structural component of forested habitat will sustain itself without management intervention as somewhat naïve. If maintaining effective pine marten habitat is the goal, deferring stands from treatment is not the way to accomplish it.	The Phase I Amendment provides direction for maintaining American marten habitat. The project was designed to meet Phase I Amendment Standards and Guidelines.
BHRA 16	The presentation of the effects analysis for tiger salamander (p. 67) was somewhat alarming to us. The cumulative effects section contained generalized, values-oriented statements about livestock grazing that should be stricken from this Assessment.	Cumulative effects on tiger salamander was revised in EA. The EA now states, "Though livestock can negatively affect amphibians by decreasing water quality, the cumulative effects of livestock on this species have most likely been minimal due to the project area's lack of perennial or intermittent streams and standing water. This effect would not increase under the action alternatives."

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
BHRA 17	We find the Purpose and Need for travel management…either ambiguous or absent. Most pressing among our concerns are the 11 miles of system roads proposed for closure, and the 7 miles of road proposed for reconstruction. Please indicate the purpose and need for these actions. It may be prudent for the IDT…to cross reference proposed closures with the District's recreation staff for Special Use Permit Conflicts.	The need for system road closure is specific to Revised Forest Plan direction for deer and elk and the Eagle Cliff cross-country ski area. Road reconstruction is needed to stabilize road surfaces, provide drainage and comply with SD Best Management Practices (BMP's). Roads associated with the vegetation management project may be reconstructed as part of a timber sale contract.

Commentator: Jim Nelson (not related to IDT Hydrologist Nelson)

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
JN 1	[Re:] the statements about no water sources in the area. It looks to me like it covers the upper reaches of Spearfish Creek (Eagle Cliffs Area)-maybe not?	The analysis area boundary does not extend to the point where Spearfish Creek creates a channel. No perennial or intermittent streams were located within the analysis area during field visits in 2001 and 2002, and no water sources are affected by the project.
JN 2	The plan does not make it clear what roads will be closed and what the plan for roads in the future is.	A map of road closures for both alternatives is in the EA. Most roads would be closed and allowed to naturally reseed. In some cases, obliteration may be necessary to effectively close the road. The system road closures within Management Area 4.1 would be gated, with only administrative use allowed.

Comments Received During 30-day Comment Period for Revised Draft EA

Commentator: Biodiversity Conservation Alliance, Native Ecosystems Council, Jeremy Nichols

Comment ID	**Comment Text** (verbatim unless otherwise noted; condensed where "…" appears)	**Response**
BioDiv 1	We feel and the Revised DEA demonstrates that an Environmental Impact Statement is necessary to appropriately analyze and assess the potentially significant impacts of the Power Timber Sale.	The Finding of No Significant Impact documents the reasons that an EIS is not necessary for the Power project.
Biodiv 2	In the context of society as a whole, the Power timber sale threatens to impact public and natural values that are owned and valued by the entire population of the United States.	The Black Hills National Forest Plan addresses these values through land allocations and Standards and Guidelines. The Power project is consistent with the Forest Plan.
Biodiv 3	The Power timber sale is also significant in terms of the context of the area affected. According to the Revised DEA, the entire project area is over 12,000 acres in size and over 4,000 acres will be impacted by the action alternatives. This is a very large portion of the BHNF and strongly indicates that, in the context of the amount of area that will be impacted, the Power timber sale poses significant impacts to the human environment.	A Finding of No Significant Impact discusses why the Responsible Official does not believe this project is likely to have significant effects beyond those already disclosed within the Revised Forest Plan FEIS and Phase I Amendment EA. This project-level analysis is tiered to those documents. The Proposed Action would treat approximately 1/3 of 1 percent of the acreage of the Black Hills National Forest. Not all of the 4,000 acres are proposed for a commercial timber sale.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
Biodiv 4	…[C]umulatively, the Power timber sale poses significant impacts to the marten, northern goshawk, black-backed woodpecker, and other species dependent upon dense mature and late successional forest habitat (e.g., brown creeper, northern flying squirrel, flammulated owl). This is especially evident in light of the fact that the Power timber sale will reduce habitat in structural stage ("SS") 4C, which is considered dense and mature forest and is a precursor to late successional forest (i.e., SS 5), by 1,254 acres, or 42% of the total amount of SS 4C. In the context of past reductions of such habitat and the impacts to native species dependent on such habitat, the impacts of the Power timber sale will be significant.	A Finding of No Significant Impact discusses why the Responsible Official does not believe this project is likely to have significant effects. The project follows all current management guidelines for the area. Nearly all of the treatments within 4C are thinning from below, which would serve to increase the average size of the stand and increase the size of the leave trees. The treatment would also help the stands remain healthy from an insect and disease standpoint. In the absence of future disturbance, these stands can still develop into SS 5.
Biodiv 5	[G]iven the amount of concern expressed over the impacts of logging to late successional and dense mature forest over the years, we find it difficult to believe that a significant level of controversy does not exist over the environmental impacts of the proposed timber sale.	This EA is tiered to the Revised Black Hills National Forest Land and Resource Management Plan Final EIS. The controversy surrounding this issue is the same as was explored in the FEIS for the Revised Black Hills Forest Plan. The Power project integrates accepted forestry practices and mitigation measures and is consistent with the Revised Forest Plan and Phase I Amendment.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
Biodiv 6, 7	…[T]he FS concludes that all action alternatives "May adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend toward federal listing or a loss of species viability range wide" for the American marten, black-backed woodpecker, and northern goshawk – all species dependent in some way on dense mature and late successional forest habitat. Yet, nowhere does the Revised DEA reference or present habitat or population trends for these sensitive species, habitat and population distribution data for the project area or the BHNF as a whole, or information explaining how impacts to these species were assessed and what thresholds were used. In fact, the Revised DEA does not even disclose whether populations of these species are currently viable or what even constitutes a viable population. The Revised DEA also discloses that the habitat of the brown creeper will be negatively impacted (directly, indirectly, and cumulatively) in a variety of ways. However, no population or habitat trend data is provided to provide a context for the conclusion that the Power timber sale will maintain the viability of the brown creeper and the viability of species dependent upon dense mature and late successional forest habitat.	The findings in the EA, BE and Wildlife Report reflect known population information at local and regional levels and the project follows current wildlife management guidelines. Specific mitigation measures were added to reduce risks to Federally-listed, Forest Service Sensitive and Management Indicator Species. These mitigation measures would ensure that no loss of viability would occur.
Biodiv 8	[T]he Power timber sale threatens to violate regulations implementing the National Forest Management Act at 36 CFR § 219.19, which require the FS to maintain viable population of native vertebrate species. A viable population is defined as, "…one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area."	The planning area in the context of viability assessment is the Forest Planning Area or the Black Hills NF. Project biologists agree that the Power project will not threaten viability. See above.

Comment ID	**Comment Text** (verbatim unless otherwise noted; condensed where "…" appears)	**Response**
Biodiv 9	The Revised DEA claims that soils and waters will be adequately protected and will not be significantly impacted because Best Management Practices ("BMPs") will be utilized. Yet, the Revised DEA also discloses that BMPs are only effective 79% of the time…[S]ince BMPs are not entirely effective, it is difficult to understand how the FS can possibly ensure compliance with state law and assert that the impacts of the Power timber sale are insignificant.	The EA includes additional mitigation measures beyond BMPs and adequately protects soils and water.
Biodiv 10	The Revised DEA states, "Under the Proposed Action, the proposed 107 acres of regeneration harvest with dispersed skidding poses a risk of exceeding the 15% [BHNF Revised Forest Plan] standard." Revised DEA, p. 71. While the FS asserts that mitigation measures will ensure compliance with the BHNF Forest Plan, there is no information or analysis presented in the Revised DEA showing this assertion to be true.	The EA discusses why Soils and Water would be adequately protected and has been revised to accurately describe the potential effects of skidding within the 107 acres of regeneration harvests. No violations of the 15% standard are expected.
Biodiv 11	…[T]he Department agreed that the FS may be required to obtain a general storm water discharge permit before proceeding with the timber sale.	According to the Code of Federal Regulations (CFR 219), the FS is exempt from obtaining a storm water discharge permit for silvicultural (vegetation management) activities, as long as state BMP's are implemented.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
Biodiv 12	If the FS believes that the impacts of the Power timber sale are not significant, we ask the agency answer the following questions to help explain why: How is the proposed action not significant in terms of context? How did the FS measure and assess the context of the impacts of the proposed action? What threshold was used? How are the impacts to dense mature and late successional forest habitat not significant? What threshold did the FS use to assess the significance of impacts to forest vegetation? How are the impacts to dense mature and late successional forest habitat not significant? How are the impacts to the viability of species dependent upon dense mature and late successional forest habitat not significant? What threshold did the FS use to assess impacts to the viability of species dependent upon dense mature and late successional forest habitat? What constitutes a viable population of these species? How are the impacts to these species not controversial? How are the impacts to soils and waters not significant? What threshold did the FS use to assess impacts to soils and waters? How can BMPs be 21% ineffective and still ensure protection of water quality? How are water quality impacts not controversial? If the FS chooses not to prepare an EIS and does not answer these questions, we will interpret this as a failure to respond to public comment.	The Finding Of No Significant Impact discusses the potential significance of the project. The project meets the direction of the Revised Forest Plan. The project is tiered to Revised Forest Plan FEIS and Phase I Amendment EA, which disclosed significant effects at the Forest-scale. Species viability discussions are more appropriate at the Forest level. This project meets the direction of the Revised Forest Plan, as amended. The Revised Forest Plan direction addresses viability.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
Biodiv 13	The Revised DEA also fails to adequately analyze a range of reasonable alternatives. Indeed, the only two action alternatives analyzed in the DEA are both very similar, indicating the FS has not developed alternatives to respond to unresolved conflicts over the use and management of natural resources on the BHNF and significant issues identified during the scoping process. Where is the intermediate alternative (i.e., alternative that harvests an intermediate amount of timber)? Where is the low-end alternative (i.e., alternative that harvests a low amount of timber)? While the FS may believe that consideration of the No Action Alternative may address commentors' concerns of timber harvesting, this misses the point. In our scoping comments, we specifically requested the FS consider alternatives that decommission roads, that do not provide commercial timber, and that propose only prescribed burning… an alternative that provides no commercial timber was eliminated because, "The Revised Forest Plan includes timber production as a need in the Power management areas. This need would not be met under a no-timber alternative." Revised DEA, p. 28. However, this statement is completely fallacious. First of all, the Revised Forest Plan makes no site-specific commitment of resources. Therefore, there is no requirement in the Revised Forest Plan to produce timber from the Power timber sale area. Second, the Forest Service is not required to produce timber on the BHNF. Unfortunately, the FS never considered these alternatives in detail and therefore failed to develop alternatives that respond to unresolved conflicts over the use and management of BHNF resources and to significant issues identified during the scoping process… while "Threatened, Endangered, Sensitive (TES) and Management Indicator Species" was identified as a "significant issue" during the scoping process, Table 2 shows that the impacts of the Power timber sale to several sensitive wildlife species and a management indicator species and their habitat are the same for both action alternatives.	Three alternatives are considered, No Action, Proposed Action and Alternative A. Other alternatives were considered but eliminated from detailed study (see Chapter Two of the EA). The action alternatives were developed to meet the Purpose and Need as described in the EA. Alternative A attempts to meet the deer and elk habitat effectiveness standards and guidelines without closing system roads. No requirement exists to arbitrarily consider harvesting intermediate or low-end amounts of timber. The FS considered an alternative that did not sell timber and decided not to study that alternative in detail. Such an alternative would be more expensive and less feasible to implement. Objective 303 of the Revised Forest Plan cannot be met without timber sales. One of the purposes of the project is to provide timber volume. Other purposes are described in the EA. In effect, a no commercial timber harvest project would be the No Action alternative, because funding would not likely be available for the vegetation management projects such as thinning and prescribed burning. Some roads could be closed or upgraded regardless, but the Forest Service would lose the efficiency of pairing the road work with a timber sale contract. The significant wildlife issue led to inclusion of many design features and mitigation measures for both action alternatives.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
Biodiv 14	We seriously question the effectiveness of snag mitigation measures and green tree retention measures in protecting sensitive and other cavity nesting and/or snag dependent species at the present. According to the Revised DEA, large diameter trees and snags are lacking in the Power timber sale area. Yet, the FS relies entirely on meeting snag mitigation measures and the existence of large diameter trees to ensure several species are adequately protected. How can this be? How can species like the brown creeper, black-backed woodpecker, three-toed woodpecker, pygmy nuthatch, and others be protected when suitable habitat conditions don't even exist and won't exist for decades? The FS needs to show how prospectively meeting snag standards will protect species in the present.	The EA discloses that snag and green tree retention will meet Revised Forest Plan Standards. Time is required to restore large snags in the project area. Habitat conditions would be expected to improve with implementation of the Revised Forest Plan, as amended.
Biodiv 15	There really is no discussion of the effects of treating mixed conifer/hardwood stands to native species. The northern flying squirrel and ruffed grouse may depend on such habitat (see e.g., Reunanen et al. 2000), yet the FS is proposing to remove conifers in hardwood stands throughout the area, thus reducing the availability of habitat for these species.	Flying squirrel and roughed grouse are not Federally-listed, Forest Service Sensitive, or Management Indicator Species. The project proposes to treat 190 acres of hardwood stands; many additional hardwood stands and inclusions exist within the analysis area. Removal of small (non-commercial size in most cases) conifers from hardwood stands was recommended by the South Dakota Game, Fish and Parks Department. Effects are described in the EA.
Biodiv 16	The discussion of impacts to the American dipper in the Revised DEA are cursory and unsupported.	The project would have no effect to American dipper, supported by the fact that no dipper habitat exists within the affected area, and no off-site effects on dipper habitat are possible.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
Biodiv 17	In discussing impacts to three-toed woodpecker, the FS overlooks the fact that the species has been found in ponderosa pine and hardwood habitat in the BHNF (Mohren 2002). Therefore, simply because spruce will not be directly harvested, does not mean the species will not be impacted.	Panjabi, 2002 states "Three-toed woodpecker occurs locally in the Black Hills in low abundance. Its distribution appears to be tied almost exclusively to mature stands of white spruce". The reports further state that the 4 occurrences (out of 26) that were in pine sites had some small inclusions of spruce, "which presumably account for the observations there." Known information was included in the BE and Wildlife Report.
Biodiv 18	The Revised DEA fails to assess the cumulative impacts to species associated with dense mature and late successional forest, such as the brown creeper, black-backed woodpecker, three-toed woodpecker, northern goshawk, northern flying squirrel, pine marten, and others.	Cumulative effects on these species are disclosed in Chapter 3 of the EA, BE and Wildlife Report.
Biodiv 19	Finally, there is no discussion in the economics section of the Revised DEA (pp. 77-78) of the impacts to economic values associated with wildlife and recreation on the BHNF. Instead, the entire discussion is about the economic benefits of timber production. Indeed, the entire economic assessment is based on how much timber is produced from each alternative.	An economic efficiency analysis following accepted practices was summarized in the EA. This analysis considers the potential direct costs and revenues of the project. Timber volume is the only aspect of the project that might result in direct revenues. A fuller economic analysis that includes market and non-market factors is part of the record for the Revised Forest Plan.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
Biodiv 20	However, we know that counties, the State of South Dakota, and even the Forest Service makes money off of hunting, off of wildlife viewing, bird watching, camping, hiking, etc. Where does this value fit in? Why has the FS overlooked other such important economic values associated with the BHNF? Does the FS honestly believe that revenue only comes from selling logs? For the FS to insure the scientific and professional integrity of its NEPA document, the agency must analyze and assess the potentially significant impacts of the Power timber sale to economic values associated with wildlife, recreation, hunting, etc.	The economic efficiency analysis focuses on effects from the Power Vegetation Management Project. Wood product volume is the only aspect of the project that would create revenue. Costs were attributed to both commercial and non-commercial project activities. The project would not significantly affect other uses such as wildlife viewing, bird watching, camping and hiking. A fuller economic analysis that includes market and non-market factors is part of the record for the Revised Forest Plan.

Commentator: South Dakota Department of Agriculture

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
SDDA 1	Page 9, Regeneration Harvest. The discussion of residual trees is confusing. In the second sentence, the author states that 20-40 square feet of basal area will remain following harvest. The fourth sentence states additional trees will be retained to leave an average of two live trees per acre on the south and west slopes and four trees per acre on north and east slopes. To leave 20 square feet of basal area in only two trees per acre would require the average diameter of leave trees to be about 43 inches. To achieve 40 BA in only two trees per acre would require the average diameter of leave trees to exceed 60 inches. I don't think the Forest Service will find any trees in the 43 to 60 inch diameter size in the Black Hills. If the Forest Service wants to achieve a residual basal area of 20-40 square feet per acre, they shouldn't worry about needing additional leave trees to accomplish their 2 to 4 tree per acre minimum.	The EA has been edited to clarify leave tree and snag requirements. The minimum number of leave trees in any prescription is 2 – 4 per acre. All prescriptions will retain at least the minimum number of leave trees. All silvicultural treatments retain live trees 20 inches and greater. Thinning from below removes the smallest trees and retains the largest trees in the stand (to meet canopy retention goals). Regeneration harvests would retain 20 – 40 square feet of basal area per acre (best formed and largest trees in the stand). The 20-inch and larger trees will be counted toward the basal area goals. Overstory removal prescriptions retain 2 – 4 trees per acre (depending on aspect) of the largest trees in the stand. The 20-inch and larger trees will be counted as part of the 2 – 4 trees per acre retained.
SDDA2	Page 35, Tables 7, 8 & 9. The acreage of structural stage 5 is missing from these tables. The tables give the impression that there are no structural stage 5 acres in the management area, nor will there be any in the future. The 710 acres of late succession stands that exist in the management areas should be represented in these tables.	The 710 acres identified as late-sucession in the analysis area are not yet at Structural Stage 5. These stands are expected to eventually develop into Structural Stage 5.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
SDDA 3	Page 37, Late Succession. The discussion indicates that sites identified for certain treatments would not develop into late succession habitat for many decades. However, it does not indicate how many acres of untreated stands would become late succession, given the absence of natural disturbance. An estimate of acres that would be expected to become late succession, given no disturbance, would be beneficial.	All forested acres have the potential to become late-succession in the absence of disturbance. However, without disturbance of some kind, thick stands of young trees may stagnate and not achieve large diameters. Stands that are in Structure Stage of 4A, 4B and 4C currently contain mature trees. These stands have some, but not all characteristics associated with late-successional stands. Most stands lack the structural characteristics that are part of a late-successional stand. The Revised Forest Plan provides direction that 5% of the Forest should be maintained for late-succession. Approximately 710 acres within the Power project area were identified to provide for this need.
SDDA 4	Page 38, Mountain Pine Beetle. The discussion indicates that the current population of Mountain Pine Beetle in the management area is endemic. This statement is supported by recent surveys conducted by the USDA Forest Service Intermountain Research Station. However, Mountain Pine Beetle populations have reached epidemic levels in two areas of the Forest, and the beetle population and resulting mortality is increasing Forest-wide including areas immediately adjacent to the management area. The Forest Service should expect the beetle population and ponderosa pine mortality to increase in the management area, and threaten the existing and post-treatment stand structures.	The EA states that without action: "Risk of insect infestation and mortality would increase while growth would decrease."

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
SDDA 5	Page 39. Direct and Indirect Effects on Vegetation – No Action Alternative. The first paragraph adequately explains the increased risk of insect, disease, and fire mortality that can be expected with the unnaturally high stand densities. However, the third paragraph contradicts the first paragraph by stating that "Over the long term, canopy closures and stand ages would increase, providing habitat for species associated with older forest conditions. Early structural stage acreage would decrease, leaving fewer habitats available for species associated with early seral and open forest conditions." I must dispute the third paragraph. The canopy closures would be short term at best. Over the long term, insects and fire will reduce the canopy coverage and move the forest to a more natural seral condition. The Mountain Pine Beetle epidemic and recent large fire events are moving large areas of the Forest to a seral condition right now. Under natural conditions, the ponderosa pine ecosystem in the Black Hills is a disturbance prone ecosystem.	That section of the EA has been clarified to state: "Over the long term, *without disturbance* [emphasis added], canopy closures and stand ages would increase, providing habitat for species associated with older forest conditions."
SDDA 6	Discussion of the no action alternative should not give the reader the unrealistic impression that, absent human induced management, the forest will move unabated toward closed canopy conditions. Such conditions are only temporary.	No Action will have no direct effects on the environment, and without other management activities or disturbances, the stands would move toward closed-canopy conditions. The EA states that No Action carries a larger risk of disturbance from insects and wildfire than the action alternatives.
SDDA 7	Page 49. Direct and Indirect Effects on Goshawk – No Action Alternative. The discussion indicates the distribution of vegetation structural stages would move toward mature and old forests, improving nesting habitat, but not post-fledging or foraging habitat. This assumption implies the absence of natural disturbances in the management area under the no-action alternative and should be stated as such, along with the caveat that the areas may not be sustainable under a natural disturbance regime.	No Action will have no direct effects on the environment, and without other management activities or disturbances, the stands would move toward mature and older forest conditions. The EA states that No Action carries a larger risk of disturbance from insects and wildfire than the action alternatives.

Commentator: Black Hills Forest Resource Association

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
BHFR Assoc. 1	1. There's a point-of-clarification that needs to be made with the brief discussion of the "No Timber" alternative that was eliminated from consideration. It insinuates that prescribed fire and noncommercial/precommercial/POL thinning would accomplish the District's desired reduction in mountain pine beetle risk. This is erroneous. MPB are not known to infest trees less than 8 inches DBH - the only way to non-commercially thin for MPB would be to implement the prescription, and then not sell the logs (a scenario we find ludicrous).	The EA did not intend to restrict the size of trees removed under a "No Timber" alternative. This alternative may indeed have "implemented the prescription and then not sell the logs…" The Responsible Official dismissed this alternative from detailed consideration because it would not adequately address the purpose and need and would forgo opportunities to generate funding through timber sales. Timber harvest is the most economical tool for implementing the proposed vegetation management projects.
BHFR Assoc. 2	Given the risk of fire ignition associated with utility lines in the project area, it may be prudent to consider treatments - perhaps in the form of fuel breaks - on FS lands adjacent to the utility right-of-way. This would include portions of Sections 34, 35, 25, 30, 29, and 20 not currently proposed for treatment.	The powerline corridor already provides a fuel break. Sections 34 and 35 along the powerline are not considered for treatment because they are outside the project area. The recent Pond timber sale treated stands along the powerline within Sections 20, 29 and 30. Other stands along the powerline were not proposed for treatment because they do not need treatment at this time. Finally, some areas were excluded from treatment to meet Revised Forest Plan Objectives, Standards and Guidelines.
BHFR Assoc. 3	3. Is there some way to make this project more economical?	The economic efficiency of the project is discussed in the EA and is primarily for comparative purposes. It is influenced by the need to meet Revised Forest Plan and Phase I Amendment Standards and Guidelines.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
BHFR Assoc. 4	4. There are potential impacts on the American dipper that would be incurred by a wildfire event in the project area. These should be noted, along with the decrease in risk that will stem from the implementation of either action alternative. It may also be of interest to the District that the US Fish and Wildlife Service has, since the publication of the Draft EA, determined that there exists "no compelling evidence for emergency listing [of American dippers] at this time." Contact the SD FWS Field Office for a copy of the letter.	The American dipper is unlikely to be affected by events within this analysis area.

Commentator: Richard Maguire

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
Maguire	Our primary concern is with the Prescribed Burn shown on Map 5 of Alternative A. This Map 5 shows that Section 16 has prescribed burn areas on the western edge of Section 16. The western border of Section 16 is immediately contiguous to our property in Section 17. We would strongly prefer an alternative for Section 16 that does not require prescribed burning due to the difficulty in controlling prescribed burns. Our property is already subdivided. We plan a real estate development. The value of the subdivided property is directly dependent upon the presence of the large trees and grassy meadows on the property. We would prefer not to take the risk of the Forest Service prescribed burn getting out of control and spreading to the trees on our land. Historically, there have been a number of Forest Service "controlled burns" in the Black Hills which have become "uncontrolled." These "uncontrolled burns" have damaged nearby private property. My opinion is that the modification of Map 5 and the inclusion of a map showing the prescribed burn in the much smaller area of Section 16, 17, 21 and 20 would be a much clearer indication that the Forest Service had exercised due diligence in researching and planning for this prescribed burn. In addition, these modifications and map additions would assist the Forest Service in fulfilling its responsibility to inform fully contiguous private property owners about the risks inherent in the various alternative approaches being considered by the Forest Service.	Prescribed burning is listed as an option for most stands to reduce ground surface fuels. Prescribed burning would also facilitate mineral soil exposure for natural regeneration of Ponderosa pine. Before any prescribed burn plan is implemented, a site-specific burn plan would be developed outlining the conditions in which the burning would occur. Stand-specific concerns would be addressed within the burning instructions of the Prescribed Burn Plan, which will not be drafted until the mechanical treatment (logging) is completed to address the conditions within the areas identified for burning. Whole tree yarding may reduce fuels sufficiently to eliminate need for follow-up burning. Whole tree yarding would reduce the amount of slash left to burn. The burn plan would need to be approved by the District Ranger. Public notice and further discussion with adjacent landowners would occur in advance of the prescribed burn project. The burn plan will include mitigation measures to reduce risk of spread. A map of the private land west of the project area is on file at the Northern Hills Ranger District. The treatment boundaries are more than 1/3 mile from the Maguire property and an escaped burn would not likely travel toward the west (based on local weather patterns). The silvicultural prescription for the stands on the western edge of the project area in Sections 9, 16 and 21 are commercial thinnings where burning would be designed to reduce mortality to the residual overstory leave trees.

Commentator: Lawrence County Timber Advisory Committee

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
LCTAC 1	The project analysis should consider the importance of commercial and non-commercial silvicultural treatments in helping to achieve Objective 206 and 217, and in helping generate KV funding needed to achieve Objective 222. The project analysis should disclose and consider the importance of silvicultural treatments in helping to generate revenue to help toward achieving Objectives 230, 231 and 232.	Objective 206 is a vertical diversity objective. This project would maintain sufficient acreage in a multi-layered condition to maintain more than the Revised Forest Plan objective of 20% of the forested landbase. Both positive and adverse effects of vegetation management proposals on wildlife habitats (the focus of Objective 217) are disclosed throughout the EA. The Revised Forest Plan directs forest management to reduce risk of loss to mountain pine beetles. The various action alternatives were developed based on the Revised Forest Plan and a growing concern with mountain pine beetle infestation. Not all acreage may be treated at this time due to various Objectives, Standards and Guidelines. While the purpose of this project is not revenue generation for noxious weed projects, selling a timber sale could create opportunities to accomplish these projects. The costs of the noxious weed treatments included in this project are estimated at approximately $23,000.
LCTAC 2	The BHNF claims the project area does not meet Phase I Standards for snag density. When was the snag data collected? It is hard for us to believe that this area is low on snags due to increasing MPB activity and wind and snow damage over the last couple of years.	Snag data is based on stand exams and validated by field visits. Large snags needed to meet Revised Forest Plan and Phase I Amendment Standards and Guidelines are lacking in the analysis area. Aerial survey data from 2001 was also reviewed.
LCTAC 3	We do not like the idea that every tree that is 20 inches and greater in diameter is going to be left.	Retention of trees 20 inches and larger is needed to meet management direction in the Revised Forest Plan and Phase I Amendment.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
LCTAC 4	There appears to be some potential for conflict between the proposed summer and winter operating restrictions pertaining to timber harvest activities. Skidding on certain soils is only going to be allowed when soil is frozen, has one foot of snow cover, or the soil moisture is below the plastic limit. Regeneration harvest units will not be harvested when the ground is frozen. We believe these restrictions to minimize soil compaction are not warranted and that most if not all of this project area has been harvested without any restrictions in the past, which has caused little if any soil compaction problems. This same sentiment is echoed on page 72…	The mitigation measures and design features in the EA are based on guidelines in the Revised Forest Plan, along with Best Management Practices and the Watershed Conservation Practices Handbook. Revised Forest Plan guideline 1104 states: "Minimize soil compaction by reducing off-road vehicle passes, by skidding on snow, frozen or dry soil conditions, or by off-ground logging systems." Dry conditions will persist over sufficient time periods to allow for skidding within regeneration harvest prescriptions.
LCTAC 5	Only 4,000 acres or 30% of the planning unit are being treated through this project and current timber sales…Why???	All stands that have a silvicultural need for treatment within the next 5 - 10 years were considered, however some of these stands were left untreated to meet the Revised Forest Plan Objectives, Standards and Guidelines, did not have need for treatment at this time, or were recently treated with previous projects.
LCTAC 6	We…are very concerned about the number of roads that are being proposed to be closed. We request that before the BHNF closes any of the roads its RS 2477 status should be determined.	Public road agencies have a process to follow if they have a claim to a road under RS2477 authority. As of this date the Black Hills National Forest is unaware of any claims to any roads on the Forest under RS2477 authority.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
LCTAC 7	Many of the actions proposed for this project will have significant cost. Precommercial thinning, conifer removal from hardwoods and meadows, post logging slash treatment…closing…system…and non-system roads most likely will cost somewhere between $500,000 and $1,000,000. Most of these actions have nothing to do with selling timber, which on this sale should produce around $600,000 of gross earnings. We encourage the USFS to make sure that these costs are correctly identified so that the Power Timber Sale does not get incorrectly identified as below cost.	The economic efficiency analysis in the EA discusses the incremental economic changes for the project as a whole and is intended to reflect the costs and revenues from the projects as a whole. Some of the actions, such as closing roads, must be done to allow the vegetation management to occur, as per the Revised Forest Plan.
LCTAC 8	Prescribed burning acreage is enormous and will be very costly and difficult to apply. A post fire audit needs to occur to make sure that these objectives are being met.	After the trees are cut and yarded (as applicable), the stands will be reviewed for post-cutting fuels treatment. Prescribed burning will not occur unless it is required to reduce fuel hazard or promote site preparation for natural regeneration. Whole tree yarding may reduce the need for burning. The cost of prescribed burning is based on best available current data and considers the inclusion of mitigation measures to protect the residual stand and reduce risk of escape.
LCTAC 9	The importance of monitoring is mentioned in the Draft. We agree that monitoring should be a very important part of ensuring that the objectives that were identified and the assumptions that were made are indeed correct.	A monitoring plan is included in the EA.
LCTAC 10	Treatment of stands that have a moderate to high mountain pine beetle risk should be one of the highest priorities…We strongly support treating more than the 46 to 50% of the acreage planned in these…stands. We have repeatedly warned the USFS that trying to maintain too much of the forest in 3C and 4C structural stages is asking trouble from wildfire and mountain pine beetles.	All stands that have a silvicultural need for treatment within the next 5 - 10 years were considered, however some of these stands were left untreated this entry to meet the Revised Forest Plan Objectives, Standards and Guidelines.

Commentator: Eric Jennings

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
EJ 1	…[I]t seems to me that the area in the north half of Section 13 is very thick. Much of the denseness of this area is due to spruce trees...I was expecting this area to be addressed.	The Phase I Amendment excludes vegetation management in spruce habitats, so no treatments are planned for spruce.
EJ 2	I hope the 7 miles of reconstruction include putting gravel on the ungraveled portions of FS 117.7 and FS 554.1.	The project includes road drainage work and graveling on a total of about 2.0 miles on 117.7 and a total of about 0.50 mile on 554.1. These segments would be reconstructed as part of the timber sale package.
EJ 3	I am supportive of closing 32 miles of system and non-system roads. Hopefully, this can be done in such a way that barricades are not simply driven around and avoided. I feel that 232 in Section 18 needs to be closed. This road is accessible from the private land in Section 13 and if it is not closed here, enforcing closure on the rest of 232.2 and NS 16 will be very difficult. Also, a private landowner uses part of 117.7J and NS 44 to access his land. Closing these roads in such a place to allow his access wouldn't take much adjustment to your plans.	Road 232.2 is currently closed yearlong and will remain closed yearlong under all alternatives. The closure is not currently fully effective, because NS 30 provides access to the road from the private land in Section 13. Both action alternatives would close NS 30, which will improve the effectiveness of the existing closure on FDR 232.2. Road 117.7J will remain open yearlong for access to private land as well as access to the powerline in sections 20 & 27. NS 44 would be closed under both action alternatives, but the location of the closure would allow needed private land access.
EJ 4	Table 4 of the Monitoring Plan lists a responsible party for noxious weed inspection and prevention but I saw no responsible party for seeing that piles are burned. Not getting the piles burned has been a problem on past timber sales and I would like to see a plan on making sure these get burned.	Your concern has been forwarded to the District Fire Management Officer (FMO). The FMO and District Ranger are ultimately responsible for carrying out the fuels prescription in each treated stand. A burn plan will be in place to deal with fuel treatments needed following thinning and timber harvest.

Comment ID	Comment Text (verbatim unless otherwise noted; condensed where "…" appears)	Response
EJ 5	From what I have seen on the past timber sales, to make a difference in water yield, you don't have to substantially reduce tree cover. Thinning the hillsides above springs and still staying within your basal area guidelines would increase the amount of water for wildlife and cattle…even small differences in water yield can benefit pasture management on a grazing allotment...With the regularity of the timber sales in this area, a reduced amount of forest cover could be maintained and the transitory effects diminished.	Any increased yield caused by timber harvest would return to the base level as treated stands grow and fully occupy the sites. The EA has been edited to reflect potential beneficial impacts to allotment resources from even modest and short-term increases in water yield.

Biodiversity Conservation Alliance

Working to Protect Native Species and Their Habitats

P.O. Box 1512, Laramie, WY 82073 (307) 742-7978 fax: 742-7989

February 13, 2003

Jackie Ringulet
PO Box 440
Grants Pass, OR 97528

Re: Power timber sale

Dear Ms. Ringulet:

Biodiversity Conservation Alliance, Native Ecosystems Council, and Jeremy Nichols hereby submit these comments in response to the January 2003 Draft Environmental Assessment ("DEA") for the Power timber sale. Once again, the Forest Service ("USFS") has proven that if ever there existed a National Forest that could clearly make the case against commercial logging, the Black Hills National Forest ("BHNF") would be that Forest. Our primary concerns are over the impacts of the timber sale to rare and imperiled species of wildlife and their habitats, including the northern goshawk, sensitive woodpecker species, and imperiled species of land snails.

It is clear that past USFS management of the Black Hills National Forest ("BHNF") has done nothing but degrade the ecological health of the region. The current condition of the BHNF ecosystem provides obvious evidence of these effects:

- Less than 2% of the ponderosa pine forest on the BHNF is now in true late successional condition, leaving species dependent on this specialized habitat imperiled and faced with extirpation. Even experts interviewed in the 2001 Expert Interview Summary criticized the USFS's claim that 5% of the BHNF is in true late successional condition, realizing full well that the entire BHNF has been artificially restrained from achieving late successional condition. To help the USFS visualize how much old growth ponderosa pine actually exists on the BHNF, we have enclosed a picture copied from Mohren (2002).

- Several species of wildlife are currently faced with extirpation and extinction on the BHNF. The black bear, a fairly common carnivore throughout the western United States due to its relatively general habitat preferences, is now described as "extirpated" on the BHNF. The USFS has indicated it has no intentions of restoring viable populations of this species nor of actually verifying on the ground whether this allegation is true. Other species like the northern goshawk, northern flying squirrel, black backed woodpecker, Lewis' woodpecker, American dipper, Atlantis fritillary butterfly, and others face similar fates. The USFS continues to assert logging and other activities do not adversely affect these species' viability, yet has provided no population information that would support this determination. For many species, the USFS has even failed to gather necessary habitat information, the least the agency could do to possibly justify any effects determination to species viability. The agency is, to say the least, effectively paving the way for Endangered Species Act listing for countless Black Hills species.

These are just a few examples of the results of past and current forest management. The results are not due to a lack of scientific data, nor to a lack of knowledge of proper methods of ecosystem management. The specific laws, rules, and regulations guiding the management of native species have been in effect since 1982 – giving the USFS 20 years to gather adequate information to ensure the agency is providing for a diversity of plant and animal communities and is providing habitat that maintains viable and well distributed populations of native species of wildlife. Rather, the ecological destruction of the BHNF has occurred because the USFS has made a priority of managing the Forest for commodity production, placing short-term economic benefits ahead of ecological health and species diversity – values that Congress intended the USFS to fully protect. Accordingly, recent administrative and legal challenges have uncovered this negligent forest management. Not only is this contrary to overwhelming scientific evidence and public sentiment but, as evidenced by recent administrative challenges and subsequent rulings, also contrary to existing laws and regulations. These challenges and rulings include:

- The appeal of the 1997 Revised BHNF Forest Plan and the Chief's appeal ruling and interim direction. This decision found significant inadequacies within the 1997 Revised Forest Plan, instructed the USFS to fix these inadequacies, and gave interim direction for forest management. Among other inadequacies, the Chief found the BHNF was not meeting its legal mandate to maintain viable and well distributed populations of native and desired non-native vertebrate species of wildlife.

- The lawsuit over the Veteran/Boulder timber sale which came about after significant concerns were raised over USFS management priorities on the Black Hills, especially concerning roadless areas and old growth habitat. The lawsuit subsequently led to a settlement agreement that gave direction for future Forest Plan amendments, increased protection to wildlife within many timber sale areas, and gave interim protection to the Beaver Park Roadless Area, an ecologically valuable roadless area that represents the few remnants of nearly untouched forest on the BHNF.

- The lawsuit over logging in the Norbeck Wildlife Preserve and the recent 10th Circuit Court of Appeals ruling which reversed proposed timber harvest in the preserve. The court ruled that the USFS could not prove that game animals and birds could be protected by the proposed sale under the Norbeck Organic Act. Although this decision was over timber harvest in the Norbeck Wildlife Preserve, it reflects a broader mind set of the USFS on the Black Hills, which seeks to prioritize and justify timber harvest any way possible. The USFS, in its attempt to protect wildlife in the Norbeck Preserve, could easily have implemented less destructive management techniques that were not commodity oriented. Instead, the agency's true priorities came out all too clear, leaving many to believe the same is happening throughout the Black Hills.

Supposedly the BHNF is managed for "multiple uses" and in fact there are many organizations and individuals that push for so-called "multiple use" on the BHNF. It is hard to believe though, that a forest managed so heavily and intensively for its timber commodities could possibly be considered a "multiple use" forest in light of the fact that this management practice has been undertaken at the expense of so many "plant and animal communities" – Congressionally recognized values that contribute to multiple use objectives. The Power DEA promises nothing different and accordingly, we cannot support any of the action alternatives due to the continued habitat degradation that will result from any of the proposed actions. We request the USFS abandon the proposed Power timber sale and instead focus upon meeting requirements to manage for native species and their habitat on the BHNF, like getting the Phase II Amendment completed.

Need for an EIS

Based on the proposal outlined in the DEA, it is clear that the USFS must prepare an environmental impact statement ("EIS") for the Power timber sale. In addition to the many uncertainties and potentially significant impacts disclosed within the DEA, the most telling indication that an EIS is necessary for the timber sale is due to the fact that it is an action that normally requires such a statement. Very recently, the USFS disclosed its intent to complete an EIS for actions in the Prairie Project area, located on the Mystic Ranger District of the BHNF. The actions proposed for the Prairie Project area appear to be very similar to those proposed as the Power timber sale, and include commercial timber harvesting, fuel reductions, road construction, and reconstruction. The fact that an EIS is being prepared for actions in the Prairie Project area indicates that an EIS is also necessary for similar proposals due to the similarity of the impacts. If the FS believes the Power timber sale and actions proposed in the Prairie Project area are not similar proposals, we ask that the FS explain how the two proposals are dissimilar, how the two proposals pose dissimilar impacts, and why an EIS is necessary for actions in the Prairie Project area and not for the Power timber sale.

Concerns over Draft EA

- Culmination of Mean Annual Increment:

The DEA state on page 41 that, "CMAI requirements only apply to the regeneration harvests; other proposed treatments are not subject to these requirements." However, this is statement is erroneous. Courts have firmly stated that, "The plain language of NFMA does not state that CMAI requirements apply only to even-aged management." See, Biodiversity Associates et al. v. Thompson, January 15, 1997, Recommendation of United States Magistrate Judge in Civil Action No. 95-WM-2923, p. 12. The Court further stated, "[T]he CMAI requirement applies to all types of harvests of timber, subject to the exceptions outlined in the statute." Id. Therefore, both the overstory removal and commercial thinning treatments are subject to CMAI requirements as outlined in 16 USC § 1604(m).

- Forest Vegetation:

We are unable to find in the DEA any analysis of the impacts of the Power timber sale to ponderosa pine habitat. For instance, the DEA discloses that a total of 3009 acres of ponderosa pine in structural stage ("SS") 4C exists in the timber sale area, yet the DEA fails to disclose how much SS 4C will result for each alternative. Furthermore, we can find no valid assessment of the impacts of the Power timber sale to forest vegetation. For example, what is the significance of the effects of the timber sale to ponderosa pine in SS 4C? This would help provide some insight into how the timber sale will affect species of wildlife dependent on mature and old growth ponderosa habitat.

Additionally, we can find no analysis or assessment of the impacts of the Power timber sale to the distribution of forest vegetation. This a glaring omission as the USFS is required to ensure wildlife habitat is "well distributed" in order to maintain viable populations of native vertebrate species. 36 CFR § 219.19.

The cumulative effects discussion is also entirely lacking. The DEA discloses that no ponderosa pine in SS 5, or old growth, exits in the timber sale area. However, we know this is not a natural phenomenon. Old growth forest has been described by early expeditions into the Black Hills (see e.g., Dodge 1876, Newton and Jenney 1880, Graves 1899, Shinneman 1996, Shinneman and Baker 1997). Furthermore, Mehl (1992) reports that, "Virtually all of the accessible areas have been cut over at least once since the

mid-1870's" and that "Since little old growth ponderosa pine remains in the Black Hills old growth will have to develop from existing stands" (p. 114). Additionally, loss of old growth in ponderosa pine forests has been attributed primarily to human activities such as logging and livestock grazing (Baker and Ehle 2001). The lack of old growth is a potentially significant impact, brought about by past logging and livestock grazing. Yet these cumulative impacts are altogether ignored in the DEA. Instead, the USFS appears to believe that the lack of old growth is an irreversible and irretrievable consequence of past activities and therefore an impact that cannot possibly be mitigated by the present timber sale. If this is the case, then we request the USFS state this logic. This would be helpful for us as it would clearly indicate the agency does in fact consider logging and other activities to pose irreversible and irretrievable commitments of resources. However, if this is not the case, then we fully expect the USFS to analyze and assess the impacts of past, present, and reasonably foreseeable impacts to old growth ponderosa pine forest in the Power timber sale area. We fully expect the USFS to analyze and assess how the Power timber sale, in harvesting stands of ponderosa pine in SS 4C, 4B, and 4A, will affect the future abundance and distribution of old growth forest.

To this end we also ask the USFS fully explain the assertion in the DEA that, "Thinning from below would encourage the development of late-successional habitat" (p. 38). We find it hard to believe that logging can help a stand turn into old growth, especially given that thinning artificially reduces the availability of green trees for future snag recruitment, for future down woody debris placement, and the fact that it reduces the overall density of the stand, leading to increases in microclimate temperature, solar exposure, and alterations in the forest floor cover (Shinneman and Baker 2000, Frest and Johannes 2002). The USFS's (2000) Expert Interview Summary prepared for the Phase I and Phase II Amendments to the Black Hills National Forest Revised Land and Resource Management Plan (2000) states, "Marriott recommended against using timber harvest to achieve late succession conditions sooner, because the process by which an area becomes late succession is as important as the end product" (p. 13). Furthermore, the USFS has not provided any information or analysis showing that thinning actually increases the rate at which late successional forest is developed or that the resulting late successional forest is even similar to a naturally developed stand of late successional forest. This information is crucial because the USFS is justifying extensive commercial thinning on the basis that it will lead to the creation of old growth. However, the entire Black Hills has been extensively thinned in the past decades. We can find no indication that old growth has increased. This is due to the fact that stands are harvested before they achieve old growth condition, a situation that will more than likely occur in the Power timber sale area. The USFS must fully address the probability that <u>all</u> stands of ponderosa will eventually be cut over and must analyze and assess the impacts to late successional forest based on this consideration.

The DEA also states, "Thousands of acres of dense, mature forest remains even after all previous and proposed treatments are considered" (p. 41). Where did the USFS come up with this statement? We can find no information or analysis supporting this assessment and the USFS appears to be justifying the extensive harvest of dense, mature forest. However, we can find no context for this statement. For instance, over what area does this "thousands of acres" exist? If the USFS relied on pictures from the Custer Expedition to make this statement, then we request the agency address the findings of Shinneman and Baker (1997). They state:

> [M]ost of the Custer photos were taken in two locations (the Deerfield and Custer areas), almost always centered around mountain parks or prairies, and they may not be a representative sample of conditions in the Black Hills forest. In addition, early photographers, such as Custer's, were often concerned mainly with aesthetics and not with documenting characteristic forest conditions. (p. 1282-1283).

Additionally, Shinneman and Baker (1997) report, "[M]any of the Custer photos document dense, pre-EuroAmerican forests. Moreover, the photo comparisons demonstrate a younger and denser forest often exists today, rather than older and denser, likely as a result of the elimination of the original forest by logging or severe fires" (p. 1284-1285). We seriously question the accuracy of the USFS's statement in the DEA. It does not seem to be consistent with existing information. Furthermore, even if thousands of acres of dense, mature forest exists in the Power timber sale area, we find it hard to believe this could provide impetus for extensive timber harvest or justification that the impacts of the Power timber sale are insignificant. Baker and Ehle (2001) report that ponderosa pine forests were historically more dense than today's condition. This is supported by other critiques and research (see e.g., Shinneman 1996, Shinneman and Baker 1997, Frest and Johannes 2002). The abundance and distribution of dense, mature forest in the Power timber sale are is most likely far below historical figures. This is supported by others (see e.g., Anderson and Crompton 2002). Anderson and Crompton (2002) state, "Despite increasing demands for timber harvest, large tracts of unlogged, mature forest should be retained throughout the Black Hills" (p. 372). We ask the USFS to fully address these findings in the context of the impacts of the Power timber sale.

The USFS's analysis and assessment of the impacts of the Power timber sale to spruce are also entirely lacking and fail to address key information. According to Mohren (2002), the amount of white spruce on the Black Hills is extremely limited, comprising less than 3% of the BHNF. This is supported by others (see e.g., Marriott et al. 1999, Marriott and Faber-Langendoen 2000). The lack of spruce is currently limiting the abundance of distribution of three-toed woodpecker populations in the BHNF (Mohren 2002). It is entirely likely then, that past activities, including logging and thinning, have reduced the amount of spruce habitat., yet there is no attempt to analyze or assess these cumulative effects. The USFS provides no information or analysis to suggest otherwise. Indeed, in the cumulative effects discussion, the USFS fails to disclose whether past timber sales or other activities have affected spruce habitat. This is a significant flaw. Additionally, in analyzing the direct and indirect impacts to spruce, the USFS defers all consideration on the basis that, "...these [spruce] stands are excluded from treatment" (p. 36). While such a statement effectively eliminates all direct impacts to spruce habitat, it fails to address the indirect impacts. For instance, how will treatments adjacent to spruce stands affect spruce habitat? Research has shown that logging and road construction adjacent to unlogged stands can alter microclimate, leading to more xeric conditions (Shinneman and Baker 2000, Frest and Johannes 2002). This can adversely impact not only the integrity and health of spruce stands, but also plants and wildlife (USFS 2000, Shinneman and Baker 2000, Frest and Johannes 2002).

Finally, the cumulative effects of livestock grazing to forest vegetation are entirely ignored. Belsky and Blumenthal (1996) state:

> The studies cited above strongly suggest that livestock as well as fire suppression, logging, and other anthropogenic activities, have contributed to altered ponderosa pine and mixed conifer forests throughout the Interior West. Not only have cattle and sheep helped convert the original park-like forests into dense stands of less fire-tolerant species, but they have changed the physical environment by reducing fire frequencies, compacting soils, reducing water infiltration rates, and increasing erosion. (p. 324)

They also emphasize, "The effects of livestock grazing are, of course, not homogenous across the western landscape....Nonetheless, the similarities of the changes occurring in grazed low- and mid-elevation forests through the Interior West suggest that livestock grazing has had profound effects over a wide range of conditions" (p. 324). It is entirely evident that livestock grazing on the Black Hills affects ponderosa pine stand condition and this must be addressed in an EIS. This is especially necessary given that the DEA discloses livestock grazing occurs in the timber sale area (DEA, p. 79).

- Fire and Fuels

The USFS states, "The Proposed Action and Alternative A would reduce fuel accumulations and fire severity in the event of a wildfire" (p. 45). This statement is wholly unsubstantiated. For example, the Jasper Fire, which was the largest fire to burn in the recorded history of the Black Hills, burned in an area that had been extensively logged. The USFS (2001) states, "In recent years (since 1987) there have been many timber sales in the Jasper area including 24 large sales (greater than 1.0 mmbf [million board feet])....A total of approximately 183 mmbf of timber has been harvested in the area from these 24 sales" (p. 4-5). We find it hard to believe that more logging in the Power timber sale area will reduce any fire risk. While we would usually ask the USFS to provide information and analysis supporting the claim that timber harvesting or other silviculture activities will do anything to affect wildfire behavior, we know that none such exists. In this case, we request the USFS just quit lying and quit justifying timber sales under the guise of wildfire control.

- Sensitive woodpecker species

The USFS states for both the black-backed and three-toed woodpeckers that, "Over 100,000 acres of the Black Hills have burned in the past three years (2000-2002). This has created extensive habitat for the species" (pp. 61, 62). However, this statement is contradicted by existing research. For instance, Mohren (2002) could find no three-toed woodpeckers in any burned areas of the BHNF. He attributed this to the fact that none of the fires that have recently burned in the Black Hills were near any spruce or aspen habitats being used by the species. In light of this research, it is difficult to believe the fires of the past years have provided any benefit to three-toed woodpeckers. Additionally, it has been determined that black-backed woodpeckers only exploit burned areas for 2-3 years after fires (Murphy and Lehnhausen 1998). It has also been shown that post-fire salvage logging adversely affects black-backed woodpecker (Hutto 1995, Saab and Dudley 1998). In light of these findings, it is apparent that existing burned areas on the BHNF have not created extensive habitat for the black-backed woodpecker. Not only have these areas experienced salvage logging, which is detrimental to the species, but due to the species' habitat preferences, these fire areas have either lost or are quickly losing their value to the black-backed woodpecker. This situation must be fully addressed in order to adequately analyze and assess the impacts to these sensitive woodpecker species.

Additionally, in analyzing and assessing the impacts to black-backed, three-toed, and Lewis's woodpeckers, the USFS must fully address research that has shown insect outbreak suppression, as well as fire suppression, is detrimental to the species (see e.g., Murphy and Lehnhausen 1998, Saab and Dudley 1998, Imbeau and Desrochers 2002, Saab and Vierling 2002, Mohren 2002). This is especially important given that these woodpeckers have been greatly impacted by past and present efforts to control insect outbreaks and suppress and/or otherwise control wildfire. Mohren (2002) states, "Allowing stands to mature and become decadent will help provide foraging habitat for black-backed and three-toed woodpeckers. Creating stands that become susceptible to wood-boring beetles will provide an abundance of available prey for both these species. Also, allowing large areas to become infested with wood-boring beetles (such as the Bear Mountain area) may let black-backed and three-toed woodpeckers increase population size" (p. 89-90).

- Northern goshawk

The northern goshawk is suffering now, more than ever, on the BHNF. In the past few years, the BHNF has experienced several largescale fires, losing several known goshawk nest locations and thousands of

acres of potentially suitable goshawk nesting habitat. Additionally, according to biologists on the Forest, several known goshawk nests on the Northern Hills Ranger District have been vandalized in recent years. These nests were completely destroyed and the nest sites rendered unsuitable for future nesting. Finally, less than 2% of the entire BHNF is considered to be old growth, which is optimal nesting habitat for northern goshawk. The amount of old growth that may even be suitable for nesting habitat (e.g., considering aspect, slope, and tree species) is considerably lower. It is safe to say that, in light of these fires, vandalism, and old growth shortage, the northern goshawk is facing a grim situation on the Black Hills.

Compounding this situation is the fact that the Phase I Amendment, approved in 2001, provides entirely inadequate protection for the northern goshawk and its habitat. In fact, the agency itself claims in the Phase I Amendment Biological Evaluation that it is "uncertain" whether the amendment can actually ensure the viability of the northern goshawk. While this "uncertainty" is disturbing, especially considering the importance of the northern goshawk and its habitat to the overall health of the Black Hills ecosystem, it is nevertheless erroneous, unsupported, and highly suspect. Given the following examples, there is every reason to conclude the Phase I Amendment and current FS management is contributing to the extirpation of the northern goshawk on the BHNF:

- In 1997, the USFS concluded that 10-15 pairs of northern goshawk inhabited the BHNF and that such a population was viable. In 1999, the Chief of the FS subsequently ruled this conclusion to be flawed. The population figure still exists, however.
- Less than 2% of the 1.2 million acre BHNF is considered to be old growth. Even less is old growth ponderosa pine that exists on slopes with aspects conducive to goshawk nest establishment.
- Leading USFS goshawk researchers have concluded the BHNF could support up to 300 pairs of northern goshawk.
- Since 1997, thousands of acres of goshawk nesting habitat and countless nest sites have been destroyed throughout. Since 1999, the USFS has not discovered any new nest sites.
- The Phase I Amendment only protects "known" northern goshawk nest sites. However, many of these "known" goshawk nests are abandoned or no longer suitable due to storm damage, fires, or vandalism. Additionally, by protecting only "known" nest sites, the USFS is essentially ignoring the need to provide habitat for goshawk expansion, dispersal, and reestablishment in other areas of the BHNF. The USFS is essentially managing for the demise of the northern goshawk.
- Protection of active nest sites is extremely limited. Disturbance within ¼ mile of an active nest site is only required to be "minimized" during the nesting season, but is not prohibited. Additionally, there is no indication that such protection is even sufficient, especially given that virtually every acre of the BHNF is within one mile of a road or nearer.
- Even in protecting "known" nest sites, the Phase I Amendment fails to define how much acreage will be protected and what stand conditions will be included in nest site protection.
- While requiring goshawk nest surveys before projects, the Phase I Amendment again fails to account for the need to provide for more northern goshawk habitat, especially nesting habitat, on the BHNF.
- The Phase I Amendment fails to provide even minimal protection for the northern goshawk and its habitat across the BHNF landscape, instead providing limited protection for sparse and isolated PFAs that are usually no more than 420 acres (the USFS defines a landscape as 5,000-10,000 acres) and that are usually only located around "known" nest sites.
- Even in protecting designated PFA's, the USFS is only required to provide for a minimum of 126 acres of nesting habitat, yet northern goshawks typically require blocks of old growth larger than 180 acres for nesting.

- Even in protecting designated PFAs, the Phase I Amendment does not limit activities that adversely impact northern goshawk and its habitat.
- Even in protecting designated PFAs, the USFS more often than not fails to include nearby old growth ponderosa pine. This inclusion would at least provide a remote chance that a PFA may be used by a nesting pair of northern goshawk.
- In managing designated PFAs, the USFS prioritizes creating early successional vegetation where old growth is either nonexistent or severely lacking. The USFS thus limits the availability of future old growth and future goshawk nesting habitat.
- The Phase I Amendment provides no direction for old growth recruitment or protection. The USFS is continuing to impede old growth ponderosa pine recruitment overall on the BHNF by cutting thousands upon thousands of acres of dense, mature forest, claiming that because of the "interim" nature of the Phase I Amendment, there is no need to manage for old growth.
- The USFS continues to ignore the impacts of largescale fires, vandalism, and storm damage to northern goshawk nesting habitat, nest sites, and individuals to the overall population and viability of the northern goshawk. The USFS refuses to limit logging and thinning in order to compensate for old growth and nest site losses on the BHNF.
- The USFS is pushing ahead with logging and thinning in the Norbeck Wildlife Preserve and Beaver Park Roadless Area, areas that the agency described as providing excellent northern goshawk nesting habitat.
- The USFS is pushing forward with extensive logging and thinning projects with the aim to reduce the density of ponderosa pine on the BHNF. Northern goshawk require dense ponderosa pine stands with greater than 60% canopy closure for suitable nesting habitat.
- The USFS continues to mislead the public into believing the BHNF needs to be logged, thinned, and otherwise turned into a tree farm to "reduce fire risk." Amazingly, some of the largest fires to burn recently on the BHNF burned in areas that were heavily logged and thinned and otherwise turned into tree farms (see e.g., USFS 2001).

Despite these glaring facts, the USFS somehow believes it does not have enough information to conclude one way or the other whether management (i.e., logging and thinning) of the BHNF is threatening the viability of the northern goshawk. There is no doubt in our mind that the USFS is pushing the northern goshawk to extinction on the BHNF, just as the agency is doing so in other National Forests throughout the western United States.

To this end, the Power timber sale adds to the long list of threats to the goshawk and its habitat on the BHNF. As disclosed on pages 58-59 of the DEA, the USFS is proposing to harvest stands of trees in vegetation structural stage ("VSS") 450 and 460 in all three designated PFAs. This harvesting will ultimately limit the availability of future VSS 5 and 6 or optimum goshawk nesting habitat. And, while the USFS claims that PFAs 1 and 2 contain sufficient amounts of VSS 5, the acreage in PFA 2 is below the 180 acre guideline for existing nest sites. Only 103 acres of VSS 5 exists in PFA 2. Additionally, given that existing snag densities are extremely low in the Power timber sale area, it is difficult to believe that goshawk prey is adequately being managed for.[1] Old growth stands typically contain more snags and down woody debris than other stands (Mohren 2002). By harvesting mature stands in goshawk PFAs, the FS is ultimately limiting the availability of future nesting habitat and limiting goshawk prey.

Finally, the DEA states:

[1] Although the DEA provides no analysis or assessment of existing snag conditions. However, the FS has commented in other documents that snag densities throughout the BHNF are below forest plan standards.

> Past timber harvest has reduced the amount of potential nesting areas by approximately 900 acres. However, past timber harvest has opened the forest canopy to create more desirable foraging conditions for goshawks. Future timber harvest and other vegetation treatments in the proposed PFA's could further move the areas toward the desired balance of habitat structure stages in these areas. Underburning that mimics the historical fire regime and maintains an open understory would benefit this species. (p. 60).

Unfortunately, this analysis misses the point. There is currently no old growth in the timber sale area, meaning no suitable goshawk nesting habitat exists. Additionally, experts have noted that the lack of nesting habitat on the Black Hills is limiting the goshawk population. How can the USFS possibly believe that providing more "foraging" habitat will benefit the goshawk while it continues to log and otherwise degrade nesting habitat?

We also ask that the USFS analyze and assess the impacts of the Power timber sale in terms of the distinct possibility that the bird may be listed under the Endangered Species Act in the very near future. Therefore, in assessing whether the project will lead to the listing of the species, the USFS must consider the fact that: 1) A federal court is still reviewing whether or not the Fish and Wildlife Service erred in concluding the northern goshawk west of the 100th Meridian did not warrant listing and 2) That any continued impacts to the northern goshawk and its habitat on the BHNF will be documented and sent to the U.S. Fish and Wildlife Service to add to the record supporting listing of this imminently threatened forest raptor.

- Fringed-tailed myotis

The USFS must recognize that the fringed-tailed myotis is an endemic subspecies (*Myotis thysanodes pahasapensis*) that only exists in the Black Hills (Hall et al. 2002). The failure of the USFS to recognize its subspecific status raises significant doubts over whether the agency, which admittedly manages most fringed-tailed myotis habitat and populations, is adequately protecting the subspecies and former candidate species. Recent studies of bat species have shown a distinct preference for old growth stands, which typically contain abundant snags (see e.g. Mattson et al. 1996). Schmidt (2002) reports that logging, livestock grazing, and loud noises adversely impact the species. The DEA fails to acknowledge these habitat components and therefore fails to adequately analyze and assess the impacts to the fringed-tailed myotis.

- Flammulated owl

An EIS must fully analyze and assess the potentially significant effects to flammulated owl and its habitat. While the Forest Service may claim that flammulated owls do not exist on the BHNF, there is conclusive evidence that suggests otherwise. First of all, the flammulated owl is very secretive and is difficult to casually observe. Given its secretive behavior and the existence of suitable habitat on the BHNF, many researchers suspect this suggests the presence of flammulated owl. Second, while conducting bat surveys in 1994, Joel Tigner observed what appeared to be a flammulated owl that had been caught in a mist net (see e.g., http://www.nps.gov/wica/Abstracts/ Abstract-Hays-Calling-Surveys-for-Flammulated-and-Northern-Saw-Whet-Owls.htm). Finally, a bird survey crew in the Northern Hills heard two separate flammulated owl vocalizations during this species' breeding season in the vicinity of the Hanna Campground (Backlund 2002). These vocalizations were confirmed as flammulated owls by the South Dakota Ornithologists Union and thus a breeding population of flammulated owls has been confirmed and accepted as existing on the BHNF. Given the species' rare status throughout its range, its dependence upon old growth ponderosa pine, and the fact that this species' existence has only recently

been confirmed on the BHNF, there is significant concern over the impacts of forest management activities to this species and its habitat. Special attention must be given to the owl to ensure its habitat is adequately protected and that the owl and its habitat do not suffer adverse impacts as a result of the Power timber sale (see e.g., Linkhart et al. 1998, Linkhart and Reynolds 1997, Reynolds and Linkhart 1992, 1987a, 1987b).

- Brown Creeper

Again, the USFS neither provides nor references any hard population trend data for the brown creeper, a management indicator species ("MIS") to support the analysis and assessment in the DEA. This is especially disheartening, especially given recent court rulings (see e.g., Forest Guardians et al. v. United States Forest Service, U.S. District Court, District of New Mexico, No. CV 00-714 JP/KPM-ACE). Admittedly, we are confused. How can the USFS possibly proceed with the Power timber sale unless it has hard population trend data for the brown creeper? Does the USFS believe it is above the law? If so, we ask the USFS to fully explain how, despite the fact that several courts, even those in the 10th Circuit, have ordered the agency to acquire and utilize hard MIS population trend data before proceeding with projects that pose impacts to MIS. Additionally, the DEA entirely fails to assess the impacts of the Power timber sale to the brown creeper. Despite the fact that habitat will be reduced from 10, 147 to 7,576 acres, there is no context provided for this reduction in habitat. Furthermore, we question how the USFS determined 10,147 acres of brown creeper habitat exists? Brown creeper habitat has been identified as dense forest dominated by large trees and late successional forest (Thomas 1979, Anderson and Crompton 2002). According to the DEA, there is only 3009 acres of ponderosa pine in SS 4C and there is no SS 5. It is difficult to believe over 10,000 acres of brown creeper habitat exists in the timber sale area.

- Snails

We cannot find any discussion of the impacts of the Power timber sale to *Vertigo arthuri*, *Vertigo paradoxa*, *Catinella gelida*, *Oreohelix* n. sp. 1 (formerly *Oreohelix* n. subsp. 1), and *Oreohelix* n. sp. 2 (formerly *Oreohelix strigosa berryi*). These snails and their colonies are protected by the Phase I Amendment, yet all we can find in the DEA is an analysis and assessment of the impacts to *Oreohelix strigosa cooperi* and *Discus shimeki*. Furthermore, the Phase I direction for snail protection is entirely inadequate. It is vague, provides no substantive on-the-ground protection, and is poorly implemented (see e.g. Frest and Johannes 2002). Additionally, in utilizing buffers to protect snail colonies, the USFS often fails to consider the importance of upland and other hydrological connections to springs and seeps supporting snail colonies. This has been identified as an important component of snail colony protection (Frest 1994).

- Other species

To reiterate from our scoping comments on this ill-conceived timber sale:

> Northern flying squirrel – An EIS must fully analyze and assess the potentially significant effects to the northern flying squirrel. This analysis must fully analyze and assess the potentially significant effects to ectomycorrhizal fungi that supports northern flying squirrels in other forests and is undoubtedly a part of the flying squirrel's diet on the BHNF (Hayward and Rosentreter 1994, Rosentreter et al. 1997, Carey 1999).

Black bear – An EIS must fully analyze and assess the potentially significant effects to the black bear and its habitat. The Forest Service has failed to provide any analysis or information supporting their claim that the black bear no longer exists on the BHNF. There is a possibility that black bear continue to exist on the BHNF and we request the Forest Service fully consult with the South Dakota Department of Game, Fish, and Parks and the South Dakota Natural Heritage Program to determine if there have been black bear sightings on the BHNF and therefore a possibility that this species still exists. Regardless of sightings though, the agency must fully consider the possibility that the black bear will naturally disperse from other areas to the BHNF and therefore reestablish itself. In the meantime, the Forest Service must protect any and all existing black bear habitat to ensure this species can restore itself to the Forest.

We also request the USFS analyze and assess the impacts to Sharp-shinned hawk, Cooper's hawk, American kestrel. An EIS must fully analyze and assess the potentially significant effects to these bird species. Recent monitoring suggests these species have declined on the BHNF, an event most likely attributable to extremely low snag densities throughout the BHNF and the lack of late successional forest habitat. The Forest Service must ensure the Power timber sale does not lead to further population declines for these species in order to ensure diversity is appropriately provided for on the forest.

We also request the USFS analyze and assess the impacts to American Dipper. The American dipper is currently listed as threatened in the State of South Dakota and its continued existence on the BHNF is questionable due primarily to sedimentation problems in streams and other sources of habitat destruction. According to recent review of the dipper on the BHNF, there is evidence that populations of American dipper are neither viable nor well distributed in accordance with 36 CFR § 219.19. The FS must ensure the Power timber sale does not further degrade dipper habitat, both in the timber sale area and downstream of the area, and ensure the viability of the dipper is not further jeopardized.

- Soils and Waters

The DEA discloses that, "...it is the 107 acres of shelterwood seed tree harvest with dispersed skidding in the Proposed Action, and the same 107 acres and 131 acres of patch clearcuts with dispersed skidding in Alternative A that poses a risk of exceeding the 15% standard" (p. 77). The Council on Environmental Quality's NEPA implementation regulations define "significance" as, among other things, "Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment." 40 CFR § 1508.27(b)(10). Contrary to the USFS's assertion on page 70 of the DEA, the Power timber sale threatens to violate the Forest Plan, which in turn is a violation of the National Forest Management Act. Clearly the impacts to soils will be significant. In this case, an EIS must be prepared for the Power timber sale to account for the potential violation of Federal law.

The DEA discloses on page 66 that, "There are no open water sources or riparian areas in the project area." This is extremely hard to believe. How did the USFS reach this conclusion? To ensure the scientific and professional integrity of the NEPA document, we request the agency provide or gather inventory data on riparian areas, springs, seeps, and other water resources in the Power timber sale area to support any assertion that no open water exists in the area.

While the USFS could choose to abandon the proposed Power timber sale in favor of ecological restoration within the Power timber sale area, we are not getting our hopes up. The agency has shown time and time again that providing commercial timber is an overriding priority in forest management on the BHNF, regardless of ecological concerns, species viability concerns, and regardless of the public's

concerns. We are not trying to push the agency to do anything illegal or irrational, we are merely asking the USFS to comply with laws and regulations and to manage the BHNF to protect the ecosystems therein using the best available scientific information. We feel this request to be more than reasonable and indeed, it has been recognized by Congress, the judicial branch of this government, the executive branch of this government, and by the citizens of this country to be so. We hope the agency chooses a different path with regards to the proposed Power timber sale and sets a new and necessary standard of ecosystem management on the BHNF by pursuing a No Action Alternative within the Power timber sale area.

Sincerely,

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for

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cc: Anne Badgley, Region 1 Director, United States Fish and Wildlife Service
Pete Gober, Field Supervisor, South Dakota Field Office, United States Fish and Wildlife Service

References

Anderson, S.H. and B.J. Crompton. 2002. The effects of shelterwood logging on bird community composition in the Black Hills, Wyoming. Forest Science 48(2):365-372.

Backlund, D. 2002. Personal communication (telephone conversation). December 2002, South Dakota Department of Game, Fish and Parks, Pierre.

Baker, W.L. and D. Ehle. 2001. Uncertainty in surface-fire history: the case of ponderosa pine forests in the western United States. Canadian Journal of Forest Research. 31:1205-1226.

Belsky, A.J. and D.M. Blumenthal. 1997. Effects of livestock grazing on stand dynamics and soils in upland forests of the interior west. Conservation Biology 11:315-327.

Carey, A.B. 1999. Ecology of northern flying squirrels: implications for ecosystem management in the Pacific Northwest, USA. In R. Goldingay and J. Scheibe, eds. Gliding mammals. Filander Press, Furth, Germany.

Dodge, I.R. 1876. The Black Hills: a minute description of the routes, scenery, soil, climate, timber, gold, geology, zoology, etc. James Miller, publisher, New York.

Frest, T.J. 1994. Recovery Plan for Iowa Pleistocene Snail (*Discus macclintocki*). US Fish and Wildlife Service. 24 p.

Frest, T.J. and E.J. Johannes. 2002. Land Snail Survey of the Black Hills National Forest, South Dakota and Wyoming, Summary Report, 1991-2001. Final Report to the USDA Forest Service, Black Hills National Forest. Deixis Consultants, Seattle, Washington. 127 p.

Graves, H.S. 1899. The Black Hills Forest Reserve. Pages 67-164 in the nineteenth annual report of the survey, 1897-1898. Part V. Forest Reserves. U.S. Geological Survey, Washington, D.C.

Hall, J.S., H.J. Marriott, and J.K. Perot. 2002. Ecoregional Conservation in the Black Hills. The Nature Conservancy, 1313 5th St. Ste. 314, Minneapolis, MN 55414. 176 p.

Hayward, G.D. and R. Rosentreter. 1994. Lichens as nesting material for northern flying squirrels in the northern Rocky Mountains. Journal of Mammology 75(3):663-673.

Hutto, R.L. 1995. Composition of bird communities following stand-replacement fires in Northern Rocky Mountains (U.S.A.) conifer forests. Conservation Biology 9(5):1041-1058.

Imbeau, L. and A. Desrochers. 2002. Foraging ecology and use of drumming trees by three-toed woodpeckers. Journal of Wildlife Management 66(1):222-231.

Linkhart, B.D. and R.T. Reynolds. 1997. Territories of flammulated owls: is occupancy a measure of habitat quality? pp. 226-230 in Biology and conservation of owls in the northern hemisphere (J.R. Duncan, D.H. Johnson, and T.H. Nichols, Eds.). USDA Forest Service General Technical Report NC-190.

Linkhart, B. D., R. T. Reynolds, R. A. Ryder. 1998. Home range and habitat of breeding flammulated owls in Colorado. Wilson Bulletin 110(3): 342 –351.

Marriot, H.J., D. Faber-Langendoen, A. McAdams, D. Stutzman, and B. Burkhart. 1999. Black Hills Community Inventory Final Report, Volume 1. The Nature Conservancy, 1313 5th St. SE, Ste. 314, Minneapolis, MN 55414.

Marriott, H.J. and D. Faber-Langendoen. 2000. Riparian and Wetland Communities of the Black Hills. The Nature Conservancy, 1313 5th St. SE, Ste. 314, Minneapolis, MN 55414.

Mattson, T., S. Buskirk, and N. Stanton. 1996. Roost sites of the silver-haired bat (*Lasionycteris noctivagans*) in the Black Hills, South Dakota. Great Basin Naturalist 56:247-253.

Mehl, M.S. 1992. Old-growth descriptions for the major forest cover types in the Rocky Mountain Region. In Kaufmann, M.R., W.H. Moir, R.L. Bassett, tech. coordinators, Old-Growth Forests in the Southwest and Rocky Mountain Regions Proceedings of a Workshop. USDA Forest Service General Technical Report RM-213, Ft. Collins, CO.

Mohren, S.R. 2002. Habitat Evaluation and Density Estimates for the Black-backed Woodpecker (*Picoides arcticus*) and the Three-toed Woodpecker (*Picoides tridactylus*) in the Black Hills National Forest. M.S. Thesis, University of Wyoming, Laramie. 110 pp.

Murphy, E.C. and W.A. Lehnhausen. 1998. Density and foraging ecology of woodpeckers following a stand-replacement fire. Journal of Wildlife Management 62(4):1359-1372.

Newton, H and W.P. Jenney. 1880. Report of the geology and resources of the Black Hills of Dakota. U.S. Geographical and Geological Survey, Rocky Mountain Region. U.S. Government Printing Office, Washington, D.C.

Reynolds, R.T. and B.D. Linkhart. 1987a. The nesting biology of flammulated owls in Colorado. Paper presented at the Symposium on the Biology and Conservation of Northern Forest Owls. Winnipeg, Manitoba, Canada February 3-7, 1987.

Reynolds, R.T. and B. D. Linkhart. 1987b. Fidelity to territory and mate in flammulated owls. Paper presented at the Symposium on the Biology and Conservation of Northern Forest Owls. Winnipeg, Manitoba, Canada February 3-7, 1987.

Reynolds, R. T. and B. D. Linkhart. 1992. Flammulated owls in ponderosa pine: Evidence of preference for old growth. Old-Growth Forests in the Southwest and Rocky Mountain Regions, Proceedings of a Workshop. USDA Forest Service General Technical Report RM-213.

Rosentreter, R., G.D. Hayward, and M. Wicklow-Howard. 1997. Northern flying squirrel seasonal food habits in the interior conifer forests of Central Idaho, USA. Northwest Science 72(2):97-102.

Saab, V.A. and J.G. Dudley. 1998. Responses of cavity-nesting birds to stand-replacement fire and salvage logging in ponderosa pine/Douglas-fir forests of southwestern Idaho. Research Paper RMRS-RP-11. USDA Forest Service, Rocky Mountain Research Station, Ogden, UT.

Saab, V.A. and K.T. Vierling. 2002. Reproductive success of Lewis's woodpecker in burned pine and cottonwood riparian forests. The Condor 103:491-501.

Schmidt, C.A. 2002. Conservation Assessment for the Fringed Bat. Prepared for the USDA Forest Service, Black Hills National Forest, Custer, SD.

Shinneman, D.J. 1996, An analysis of range of natural variability, roads, and timber harvesting in a Black Hills ponderosa pine forest landscape. M.A. Thesis, University of Wyoming: Laramie, WY. 99 p.

Shinneman, D.J. and W.L. Baker. 1997. Nonequilibrium dynamics between catastrophic disturbances and old-growth forests in ponderosa pine landscapes of the Black Hills. Conservation Biology 11(6):1276-1288.

Shinneman, D.J. and W.L. Baker. 2000. Impact of logging and roads on a Black Hills ponderosa pine forest landscape. In Knight, R.L., F.W. Smith, S.W. Buskirk, W.H. Romme, and W.L. Baker, eds. Forest Fragmentation in the Southern Rocky Mountains. University Press of Colorado, Boulder.

Thomas, J.W. (tech. ed.). 1979. Wildlife habitats in managed forests: the Blue Mountains of Oregon and Washington. Agric. Handb. No. 553. 512 p.

USFS. 2000. Expert Interview Summary for the Black Hills National Forest Land and Resource Management Plan Amendment. USDA Forest Service, Black Hills National Forest, Custer, SD.

USFS. 2001. Jasper Fire Value Recovery Final Environmental Impact Statement. USDA Forest Service, Black Hills National Forest, Custer, SD.

January 30, 2003

Power Vegetation Management Project
ATTN Jackie Ringulet, USFS
P.O. Box 440
Grants Pass, OR 97528

RE: Draft comments on the Power Vegetation Management Project by Native Ecosystems Council

Hello,

Native Ecosystems Council would like to make the following comments and requests for additional information regarding the environmental assessment released for public comments on the proposed Power timber sale. These comments are broken in to general observations on the EA, as well as additional information needs (questions). You will note that many of our concerns deal with the guidelines implemented by the Forest Planning process, in addition to the site-specific analysis.

We appreciated your identification of the deadline for submitting comments in the cover letter. This is very helpful to the public, since we don't have to call the Forest to find out when the legal notice was published.

Overall, we noted what is common for Black Hills Forest NEPA work, in that there is almost no information on wildlife viability/occurrence in the project area, and almost no conclusions of project impacts on populations, even when drastic reductions in habitat are projected. This lack of analysis is promoted by the almost total lack of any wildlife habitat criteria. If you don't know what they need, how can you project how they will be affected by habitat changes? You have not achieved the goal of this analysis, which is to determine whether or not significant impacts will happen to wildlife.

A. General comments

1. You are implementing goshawk guidelines which differ considerably from the current published recommendations by Reynolds and others. You have not yet provided any analysis or data to demonstrate that the changes you made will still maintain viable populations of goshawks.The data and monitoring used to support these changes has never been provided to the public. Changes include calling openings larger than 1-2 acres goshawk habitat, a huge reduction in the diameters per the 6 structural stages, a reduction in the amount of older structural stages for the postfledging area, and a lack of management of foraging habitat, as some examples.
2. You have not talked at all about the population status of the goshawk in the general area of the project area. Goshawks are a significant public issue, and this information needs to be provided.
3. You snag information has very limited utility as per management impacts. A average for the entire project area is relatively meaningless, except to point out the severe impacts logging continues to have on this critical wildlife resource. You need to be providing snag densities by structural stage, and demonstrate how these densities will be affected by the proposed treatment. For example, how will the proposed harvest treatments reduce snag recruitment on those specific acres, and how will this affect landscape availability of snags. This issue is completely ignored in your analysis (impact of logging on snags).
4. You need to define the criteria by which significant impacts to snag-associated wildlife are based on. After all, that is the purpose of your analysis. The public needs to know what the basis for determinations on significance are.
5. You have not provided any monitoring data for the occurrence of management indicator and sensitive species in the project area. You need to demonstrate where these species are occurring, and how they will be protected with the proposed logging.
6. You have not identified any conservation strategies for MIS and sensitive species, even though huge portions of their habitat in this landscape will be modified by logging (25-50%). If you have no habitat standards for these species, how do you measure current or expected habitat conditions? What criteria are you using to measure impacts, or to determine whether or not these impacts will be signifciant?
7. You have not addressed the current population trends for sensitive and MIS in the project area; if trends are down, what are the possible

problems, and what are the possible solutions? You have not told the public how are you going to manage these wildlife species in this area.

8. There are clearly conflicts with logging and wildlife, yet one would never guess it by reading your EA. You have avoided ever acknowledging these conflicts, including the lack of snags in the area.
9. You have not provided any conclusions of logging impacts on sensitive and indicator species. All you do is summarize estimated declines in habitat. What will this do to local population persistence???
10. You have completely ignored a significant public issue, or management of old growth. It is not mapped in the area, and in fact, we could not even understand you description of what the Forest Plan requires. You need to tell the public how management of old growth in this landscape will ensure viability of associated species.
11. You did not make any connection between old growth in the project area and goshawk management. Aren't these being managed together, and if not, why not? We noted that no old growth is located within the goshawk postfledging areas, even though Reynolds and other recommend up to 29% old growth for these 600-acre areas.
12. You did not mention forest interior habitat. We are concerned about the loss of forest interior habitat. Please identify where it occurs in the project area, what species depend upon it, and how you will maintain viability of this suite of wildlife. How do you identify significant losses of interior habitat on wildlife?
13. You did not provide analysis as to how the planned level of habitat for the pine marten will affect their viability in this portion of the landscape.

B. Questions

1. **Please provide a large-scale map of the two goshawk postfledging areas identified in the EA.** We would like to get a much better understanding of what the current habitat is in these areas, as well as how they will change with treatments. We would like to know, on a map, what the current structural stages are here, and where and what type of harvest is planned throughout the postfledging areas. The miniscule maps provided on these in the EA are of little information value to the public, and we have no idea of where logging will occur.

2. Please identify what the snag density is within each of the two postfledging areas.
3. Please identify what level of forest thinning is considered as improvement of goshawk foraging habitat.What is considered as too heavy of a canopy closure for foraging? What is the minimum level of canopy closure that is needed to maintain foraging? What are these conclusions based on?
4. Please define what goshawk prey species are known to increase in areas of thinned forest on the Black Hills, and how this was determined.
5. What is the cumulative effects area for goshawk in your analysis?
6. What is the breeding history of goshawks in the cumulative effects area as per nest occupancy, nest success, and long-term persistence of breeding territories?
7. You indicated that goshawk trends are up. Are they are historical levels, or are they below what would have naturally occurred?
8. What is the impact of a loss of 900 acres of goshawk nesting habitat in the cumulative effects area?
9. What is the criteria by which you are identify whether or not significant cumulative effects have occurred, or will occur, to goshawks in this analysis area?
10. Since forest harvest will reduce the ability of stands to produce snags, and the area is already below recommended snag densities for the goshawk, why will thinning benefit goshawk foraging? Why is a reduction of cavity-associated wildlife going to be a benefit, either in the short or long term?
11. The current snag density of 0.05 large snags per acre is far below that recommended by Reynolds and others for the goshawk, as well as below the Forest Plan recommendation. If this isn't considered a significant impact on wildlife, then what type of snag conditions would be considered a significant impact. How do you ever get significant impacts on snag-associated wildlife?
12. Your guidelines require that no habitat changes occur to the goshawk as a result of commercial thinning. As we noted, one change is the snag potential. Another will be basal area and canopy closure. If you go from 60% to 40% canopy closure, you will fall below the minimum recommended by Reynolds and others. You need to show how you determined these changing habitat conditions will not affect goshawk habitat, since there is data available to indicate otherwise.

13. Please map the pine marten habitat for the project area, including the structural stage, so that the public can understand where this habitat exists.
14. Please map the connecting corridors for pine marten habitat.
15. Please define what amount of spruce habitat is necessary for local persistence and habitat needs of the pine marten, and identify whether these needs are being met in the project area. If they aren't, what about increasing spruce forests on spruce habitat types?
16. Please map the old growth and forest interior habitat in the project area, before and after the planned treatment.
17. What criteria are you using to determine whether significant impacts have occurred in the project area on old growth and forest interior wildlife? What has to happen before a significant impact can occur for these habitat features?
18. Even though there is no old growth within the 2 postfledging areas, while Reynolds and others calls for up to 29% old growth here, you have not indicated this is a problem. Why isn't this a significant habitat degradation for the goshawk?
19. The current open road density creates a significant on big game (3.8 miles per section) What will the open road density in the summer and fall be when the project is completed?
20. Please identify the level of hiding and thermal cover in the project area, both before and after logging.
21. What are the suspected problems with the current declining population of deer, and what is this based on?
22. What is the current level of big game security in this area, and how is this affecting big game vulnerability?
23. If local habitat is not needed in the project area for management indicator and sensitive species, how have you ensured that enough habitat will be distributed across the Forest to still meet their viability needs?

Regards,

Sara Jane Johnson, NEC
PO Box 125
Willow Creek, MT 59760

STATE OF SOUTH DAKOTA
M. MICHAEL ROUNDS, GOVERNOR

February 10, 2003

Elizabeth Krueger
Northern Hills Ranger District
2014 North Main
Spearfish, SD 57783

RE: Environmental Assessment of the Power Vegetation Management Project

Dear Elizabeth:

Thank you for the opportunity to provide comments regarding this environmental assessment.

Based on our review, I believe the best course of action for the state of South Dakota is Alternative A. The completion of this action would meet the overall goals of the Black Hills Forest Management Plan and reduce fire hazards in a critical area.

It is important that no Forest Service system roads be closed. Local fire departments have been very concerned with Forest Service proposals that include closing roads. They were concerned with access when they need to fight wildfires. Alternative A is a compromise that will not close established system roads.

The state also believes that the implementation of Alternative A can be supported by a finding of "No Significant Impact" and should not require preparation of an Environmental Impact Statement (EIS). Preparation of an EIS will unduly slow the implementation of this project.

The Forest Service needs to work closely with all private landowners in the project area and with state, county, and local agencies when undertaking projects that should be planned across jurisdictional boundaries. Wildfire hazards need to be minimized in the project area. This can best be done through joint efforts. We would like to see joint planning of all Forest Service projects—especially those that are Wildland-Urban Interface (WUI) areas.

Thank you, again, for the opportunity to provide comments.

Sincerely,

M. Michael Rounds

MMR:ls

cc: John Twiss, Black Hills National Forest Supervisor

STATE CAPITOL • 500 EAST CAPITOL • PIERRE, SOUTH DAKOTA 57501-5070 • 605-773-3212

Black Hills Forest Resource Association

2040 West Main Street, Suite 315, Rapid City, South Dakota 57702-2447, (605) 341-0875

Power Vegetation Management Project
ATTN Jackie Ringulet, USFS
PO Box 440
Grants Pass, OR 97528

February 18, 2003

Dear Ms. Ringulet,

This letter is in response to the Forest Service's request for public comment on the Power EA on the Northern Hills Ranger District of the Black Hills National Forest. The Black Hills Forest Resource Association is a member-supported nonprofit organization representing federal timber purchasers, secondary manufacturers, foresters, and other supporters of forest management in the Black Hills of South Dakota. We are happy for this opportunity to comment on Power, and look forward to working with you as this project progresses.

Let us begin by expressing our support for the Action Alternatives. We believe that the application of mechanized silvicultural treatments through partnership with the forest products industry is the most biologically, economically, and socially desirable means by which these and land management objectives may be achieved. We further believe that a healthy forest condition is the construct within which all other management goals may be pursued, and without which, all other management goals are unattainable.

We would, however, like to convey some questions and concerns regarding the Proposed Action and Environmental Assessment; please lend these items your full consideration.

1. Purpose and Need Some aspects of the programmatic guidance provided in the Black Hills Land and Resource Management Plan seem to have escaped consideration or documentation thereof. The project would benefit from mention, analysis, or greater emphasis placed upon the following:

-As the project's hardwood management is analyzed, it should carefully consider Objective 201's direction to "restore historic hardwood communities by 10 percent over 1995 conditions *on sites capable of supporting these communities*." We support managing for a vegetatively diverse landscape, including hardwood communities. However, we feel that the project analysis should clarify whether, in fact, an historic hardwood community existed, whether or not the site is capable of supporting hardwood communities in the long term. Incidentally, the most recent published FIA data (DeBlander, 2002) show that the Black Hills have quite vastly exceeded a forestwide 10 percent hardwood increase over 1995 conditions.

A renewable resource

-The project analysis should consider the importance of commercial and noncommercial silvicultural treatments in helping to achieve Objective 206 and 217, and in helping to generate the KV funding needed to achieve Objective 222.
-We encourage the District to show a more significant reduction in the acreage of ponderosa pine stands at medium or high risk of mountain pine beetle infestation, per Objective 228.
-The project analysis should disclose and consider the importance of silvicultural treatments in helping to generate revenue to help toward achieving Objectives 230, 231, and 232.
-The travel management proposals in the Proposed Action should comply with Objectives 309 and 421. We urge the District to ensure that access needed for fire suppression, future management, and recreational opportunities is not foregone through the proposed closures.
-The project analysis should consider the importance of silvicultural treatments in achieving Goal 6, and the District should strive to achieve Objectives 601 and 602 in the pursuit of this Goal.

2. Mitigation Measures
-We understand that the project area does not meet Phase I Standards for snag density, and that this forms the impetus for the institution of the 20-inch diameter limit in the Proposed Action. We further understand that the statement we are about to make will be discarded as 'outside the scope of this project'. Be that as it may, we believe that programmatic diameter limits represent an aberration of the practice of forestry and silviculture, and have no place in integrated forest resource management under any circumstances. Furthermore, aerial survey data collected in 2001 on mountain pine beetle indicate significant activity in the area surrounding Power. We are therefore curious to know how the ID Team can assert that snag abundance is lacking, given the extent of this damage and the inevitably increased mortality that has occurred since the time surveying was completed.
-There appears potential for conflict between the proposed summer and winter operating restrictions pertaining to timber harvest activities. That is, skidding would only occur when soil moisture is below the plastic limit or frozen, and log hauling schedules would avoid winter conflicts with popular snowmobile roads. Weather is an unpredictable factor in timber sale administration. The Forest Service ought to take pains to make sure that the project is operable throughout a reasonable portion of the season, given these restrictions.
-We encourage you to post interpretive signs along trails and roads pertaining forest management, and furthermore, volunteer our organization along with the South Dakota Society of American Foresters to assist in the development and installment of such signs. We also encourage you to ensure that active timber sale units are adequately identified to winter recreators through cautionary signing.

3. Monitoring
-With regard to soil and water monitoring and SD BMP's, we recommend that the Forest Service collect some measure of quantitative baseline information (particulate size, turbidity, etc) in addition to its proposal to monitor these factors during the course of

contracted activities. Water quality is an important issue on the Black Hills, and it is our belief that a quantitative database of mitigation measure effectiveness will be required somewhere in the near future as part of the interagency/interdisciplinary BMP field audit process in South Dakota.

4. Alternatives Eliminated from Detailed Study

-With regard to water yield increases commensurate with vegetative treatments, we believe it is erroneous to categorize them as "immeasurable". We refer you to the research of Dr. Charles Troendle at the Rocky Mt. Research Station, particularly those findings in the Coon Creek watershed and Upper East Fork of the Encampment River on the Medicine Bow-Routt National Forest. While the type and scale of the vegetative treatments differ between these experiments and Power's Proposed Action, some amount of extrapolation is merited.

5. Alternatives and Their Analyses

-Almost never do we consider it accurate to describe the No Action Alternative as having 'no direct impacts'. A more clear expression of risk should be conveyed as it pertains to the inevitability of forest pathogen infestation and/or catastrophic wildfire events. Particularly is this true for the soil productivity, water and air quality, and late succession habitat-dependent wildlife portions of the analysis. Some measure, intuitive or quantitative, should be attached to the impacts these resources would sustain in the event of a wildfire, for instance. We regard the expression of Present Net Value or Benefit-Cost Ratio for the No-Action in the same way; there is risk involved in doing nothing, and that risk should be disclosed.

-In the assessment of impacts on TES and MIS;

- Though we clearly loathe the idea of 'snag recruitment', the project analysis for Action Alternatives should at least reflect a beneficial impact on all snag-dependent species.
- With regard to Northern Goshawk impacts, we find it curious that, although all Action Alternatives move the Project Area's balance of structural stages toward the recommendations of Phase I Standard 3114, the species was still assessed as 'maybe impacted'. On a related topic, we wonder why the Preferred Alternative does not meet the S.3114 recommendations for structural stage distribution in PFA's 1, 2, and 3. The PFAs, and the Project Area as a whole, seem to contain an over-abundance of SS4B and 4C under the Preferred Alternative, resulting in a lack of SS1, 3A, and 4A.
- We have some questions about the deferral of treatment in certain stands (Map 5) on the basis of Phase I pine marten guidance. For instance, what is the effectiveness of the "high occupancy potential" late-successional habitat currently present within the Project Area? Does it contain sufficient understory plant diversity to maintain prey species populations? Is it a safe assumption that this habitat will persist on the landscape until the next time this area is considered for treatment? Will the desired stand structural characteristics and microclimate exist indefinitely, if left to their own successional and disturbance devices? Low open road densities evidently have a beneficial impact on marten habitat; does the impact assessment for

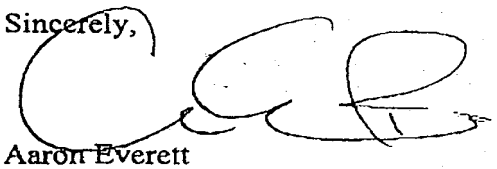
marten reflect the travel management proposals in the Preferred Alternative? In general, we regard the expectation that a given structural component of forested habitat will sustain itself without management intervention as somewhat naïve. If maintaining effective pine marten habitat is the goal, deferring stands from treatment is not the way to accomplish it.

-Though the issue does not pertain directly to the interests of the Black Hills Forest Resource Association, the presentation of Effects Analysis for tiger salamanders (p67) was somewhat alarming to us. The cumulative effects section contained generalized, value-oriented statements about livestock grazing that should be stricken from this Assessment. Personal agendas, which are what we're left to assume were the root of these comments, have no place in what should be an objective scientific document.

-Lastly, travel management. We find the description of the Purpose and Need for travel management under the Preferred Alternative either ambiguous or absent. Most pressing among our concerns are the 11 miles of system roads proposed for closure, and the 7 miles of road proposed for reconstruction. Please indicate the purpose and need for these actions. It may also be prudent for the ID Team, if it has not done-so already, to cross-reference proposed closures with the District's recreation staff for Special Use Permit conflicts.

We thank you again for this opportunity to lend input on the Power project, and hope you will take our concerns into consideration. Please do not hesitate to contact me with any questions you might have.

Sincerely,



Aaron Everett
Forest Programs Manager

The following comment was electronically submitted on January 31, 2003:

Rochelle: Greetings from Prescott, AZ where we spend the mid-October to mid-May period when we are not in the Canyon. I have reviewed the subject Project on the Website and I say--"get on with it!" The only questions I had were regarding the statements about no water sources in the area. It looks ot me like it covers the upper reaches of Spearfish Creek(Eagle Cliffs area)--maybe not? The quicker the FS can accomplish some of these projects to show what a less-dense, but more catastrophic fire-resistant/healthy forest looks like, the better. The plan also does not make it clear what roads will be closed and what the plan for roads in the future is--at least I could not discern it from reading it.
Also, what is the status of the Griggs Gulch plan as to how far it has progressed? Finally, I wanted the FS in the Black Hills to know that when we returned to Prescott this last October, we were greeted with immense areas of dead Ponderosas and Pinons due to the combined effects of the severe, several year drought in the Prescott National Forest Area and the huge spread of the pinebark beetles. The FS here estimates that at least 30-50% of all Ponderosas and Pinons will be lost even though drastic actions are underway. They have now removed ~8000 mature Ponderosas in the Thumb Butte area which is a Prescott landmark and very popular picnic/hiking/horseback riding area. They are in the process of removing 1700 in the Granite Basin areas. These are relatively small areas compared to the task they have facing them. The city and Yavapai County have put together a supporting program wherein the Fire Dept. of the City will come to homeowners' properties within the city to remove dead and dying Ponderosas/Pinons for $50/tree. This includes cutting by local landscaping-type contractors and removal by the Fire Dept./County crews. This is done so the few timbering contractors left can all be utilized to work in the Nat'l Forest. The Prescott Nat'l Forest is not alone--the Coconino, Tonto, etc., aroung Flagstaff, Show Low, Payson, etc., are all facing major Beetle infestations combined with the extreme drought of the last 4-5 years here in what is already a dry climate. The fire on the edge of Prescott last May has the local populace very supportive--also, as I have told everyone I know in the Black Hills, and as I put in my remarks on Griggs Gulch/The Landscape Assessment, the FS here has used controlled/prescribed burning extensively for many years and the understory in many areas has been reduced considerably. However, although not as dense as the Black Hills, the Ponderosa/Pinon/hardwood forest here has grown much too dense for this high arid area to suppot, especially in the current drought. Witness the Show Low fire last June--450,000 acres! So, get out there and thin 'em out properly. Jim Nelson

Comments Received During 30-day Comment Period for Revised Draft EA

The following comment was electronically submitted on May 30, 2003:

May 30, 2003

Rochelle Desser

201 Caves Highway

Cave Junction, OR 97523

Re: Power timber sale

Dear Ms. Desser:

Biodiversity Conservation Alliance, Native Ecosystems Council, and Jeremy Nichols hereby submit these comments in response to the April 2003 Revised Draft Environmental Assessment ("Revised DEA") for the Power timber sale. While we have already expressed extensive comments on this timber sale proposal and others, we do have further concerns. Specifically, we feel and the Revised DEA demonstrates that an Environmental Impact Statement is necessary to appropriately analyze and assess the potentially significant impacts of the Power timber sale. We also feel and the Revised DEA demonstrates that the Forest Service ("FS") has failed to rigorously explore and objectively evaluate reasonable alternatives.

Need for an EIS

An EIS is required to be completed for all major federal actions that significantly affect the quality of the human environment. See, 40 CFR § 1502.3. As to the question of whether significant impacts will in fact occur and thus require an EIS, it is enough to raise "substantial questions whether a project may have a significant effect" on the environment. See, Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d at 1212 (9th Cir.(Or.)1998), citing Idaho Sporting Congress v. Thomas, 137 F.3d at 1149 (9th Cir. 1998). An EIS must therefore be prepared if "substantial questions are raised as to whether a project... may cause significant degradation of some human environmental factor." Id. Significance is defined at 40 CFR § 1508.27. In particular, to determine whether a major federal action will significantly impact the environment, the FS must evaluate the impacts of a proposed action in terms of the "context" and the "intensity" of the impacts. 40 CFR § 1502.27(a) and (b). With regards to intensity, the FS must fully consider "the degree to which the effects on the quality of the human environment are likely to be highly controversial," "the degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks," and "Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment." 40 C.F.R. § 1508.27(b)(4), (5), and (10) (emphasis added).

According to 40 CFR § 1508.27(a), context means that, "…the significance of an action must be analyzed in several contexts such as society as a Whole (human, national), the affected region, the affected interests and the locality." In light of this, there are several contexts that suggest the impacts of the Power timber sale will be significant. For instance, in the context of Society as a Whole, the Power timber sale threatens to impact public lands and natural values that are owned and valued by the entire population of the United States. The impacts thus are not local, but rather affect a broad spectrum of citizens in the entire continental United States and the States of Alaska and Hawaii. Furthermore, every U.S. citizen has a vested interest in the public lands that will be impacted by the Power timber sale, whether or not they comment on the proposal or not. Indeed, hundreds of thousands of U.S. citizens visit and enjoy the Black Hills National Forest every year and are affected in some way by the impacts of timber sales, including the Power timber sale. In this context, the impacts of the Power timber sale are significant.

The Power timber sale is also significant in terms of the context of the area affected. According to the Revised DEA, the entire project area is over 12,000 acres in size and over 4,000 acres will be impacted by the action alternatives. This is a very large portion of the BHNF and strongly indicates that, in the context of the amount of area that will be impacted, the Power timber sale poses significant impacts to the human environment.

Additionally, in the context of the current ecological crisis (or cumulative impacts) on the Black Hills, the impacts of the Power timber sale are significant. Indeed, there are many quotes within the Revised DEA that suggest the Black Hills ecosystem is lacking the old growth component the forest once supported. For instance, the Revised DEA states:

> "Today the pine forest is structurally different from historical conditions. The original old-tree component has been mostly removed by harvest during the past century; tree densities are higher; the pine forest has encroached into meadows, grasslands, and hardwood stands; and pine age-class distribution may be more uniform (USDA 1996)." Revised DEA, p. 41.

In the context of this quote, which reveals that 1) The Black Hills currently lacks an old-tree component and 2) Logging is responsible for the loss of an old-tree component, the cumulative impacts of the Power timber sale are significant. Indeed, the proposed action calls for 107 acres of regeneration harvest, which will remove "most of the existing forest canopy." The proposed action also calls for 793 acres of overstory removal, which will remove "existing large trees." Thus, the proposed action will continue to remove old trees and/or inhibit the creation of old trees to replace those that were lost as a result of logging. In the context of the existing conditions (i.e, loss of original old-tree component as a result of logging), the Power timber sale is significant.

The Power timber sale will also be significant in the context of impacts to sensitive species, especially those dependent upon mature and late successional forest, and their habitats. The Revised DEA states:

> "Timber sales in the project area have cut a total of 95 acres of spruce in the last five years. Ponderosa pine stands with a significant spruce component may also have been harvested. Both high-potential marten habitat and habitat connectivity were likely reduced." Revised DEA, p. 48

> "Recent timber harvest reduced the amount of potential [northern goshawk] nesting habitat by approximately 900 acres." Revised DEA, p. 50

> "Past and active timber sales in the cumulative effects area have reduced acreage of potential habitat for this [black-backed woodpecker] species." Revised DEA, p. 53

> "Cumulative effects of past and current projects include moving much of the dense, mature conifer forest to more open conditions or converting old stands to young forest….Species associated with mature forest with high canopy closure, such as the brown creeper, black-backed and three-toed woodpecker, and goshawk (nesting habitat) have lost habitat." Revised DEA, p. 66

These statements, along with information in the BHNF Revised Forest Plan Final EIS and the Chief's 1999 ruling on appeals the BHNF Revised Forest Plan, suggest that cumulatively, the Power timber sale poses significant impacts to the marten, northern goshawk, black-backed woodpecker, and other species dependent upon dense mature and late successional forest habitat (e.g., brown creeper, northern flying squirrel, flammulated owl). This is especially evident in light of the fact that the Power timber sale will reduce habitat in structural stage ("SS") 4C, which is considered dense and mature forest and is a precursor to late successional forest (i.e., SS 5), by 1,254 acres, or 42% of the total amount of SS 4C. In the context of past reductions of such habitat and the impacts to native species dependent on such habitat, the impacts of the Power timber sale will be significant.

Several scientific sources support the fact that the Power timber sale, in removing 42% of the total amount of SS 4C, poses significant impacts in the context of the existing conditions. Indeed, the Revised DEA discloses that no ponderosa pine in SS 5, or old growth, exits in the timber sale area. However, we know this is not a natural phenomenon. Old growth forest has been described by early expeditions into the Black Hills (see e.g., Dodge 1876, Newton and Jenney 1880, Graves 1899, Shinneman 1996, Shinneman and Baker 1997). Furthermore, Mehl (1992) reports that, "Virtually all of the accessible areas have been cut over at least once since the mid-1870's" and that "Since little old growth ponderosa pine remains in the Black Hills old growth will have to develop from existing stands" (p. 114). Additionally, loss of old growth in ponderosa pine forests has been attributed primarily to human activities such as logging and livestock grazing (Baker and Ehle 2001), as is addressed in the Revised DEA. The lack of old growth and dense mature forest is a potentially significant impact, brought about by past logging and livestock grazing and the Power timber sale promises only to exacerbate this ecological crisis.

Additionally, Baker and Ehle (2001) report that ponderosa pine forests were historically more dense than today's condition. This is supported by other critiques and research into the Black Hills and its natural values (see e.g., Shinneman 1996, Shinneman and Baker 1997, Frest and Johannes 2002, Mohren 2002). The abundance and distribution of dense, mature forest in the Power timber sale are is most likely far below historical figures. This is supported by others (see e.g., Anderson and Crompton 2002). Anderson and Crompton (2002) state, "Despite increasing demands for timber harvest, large tracts of unlogged, mature forest should be retained throughout the Black Hills" (p. 372). Given the lack of dense mature and late successional forest habitat in the Power timber sale area and the overall concern over species dependent on such habitat, the impacts of the Power timber sale will be significant.

The impacts of the Power timber sale are also significant in terms of intensity. The intensity of impacts are significant in terms of the uncertainty associated with many impacts, the degree to which impacts are likely to be highly controversial, in terms of the potential violation of federal and state laws.

Potentially Significant Impacts to Forest Vegetation

As touched on earlier, the Power timber sale poses significant cumulative impacts to forest vegetation, especially late successional and dense mature forest. Such habitat was once more abundant in the timber sale area, but past timber harvesting has reduced the amount of dense mature and late successional forest.

Despite the cumulative (past, present, and reasonably foreseeable) impacts to late successional and dense mature forest habitat, the FS appears to be pushing ahead with cutting down even more dense, mature forest, which will one day turn into late successional habitat that is vital for the survival of several native species. According to the Revised DEA and the FS, these impacts are not significant, yet the Revised DEA provides no explanation as to how the FS assessed the significance of these impacts or what thresholds are typically used to assess the impacts (direct, indirect, and cumulative) to dense mature and late successional forest on the Black Hills. Thus, it appears there is a high level of uncertainty surrounding the impacts of the Power timber sale to late successional and dense mature forest habitat. That, or the FS is violating NEPA by failing to conduct an adequate analysis and assessment. Additionally, given the amount of concern expressed over the impacts of logging to late successional and dense mature forest over the years, we find it difficult to believe that a significant level of controversy does not exist over the environmental impacts of the proposed timber sale.[1] Furthermore, this controversy is not simply a matter of opposing logging. Biodiversity Conservation Alliance does not oppose logging. Biodiversity Conservation Alliance supports sound forest management that fully protects the natural values that Congress and the Executive Branch of this government have pledged to protect. In light of the significant lack of dense mature and late successional forest on the Black Hills and in the Power project area, we are very concerned that the Power timber sale will not protect the natural values of the Black Hills and is not a reflection of sound forest management. Finally, even members of the scientific community have expressed concern over the lack of late successional and dense mature forest and have even recommended the Forest Service do more to protect such habitat (see e.g., Mattson et al. 1996, Shinneman 1996, Shinneman and Baker 1997, USFS 2000, Anderson and Crompton 2002, Frest and Johannes 2002, Mohren 2002). Clearly, a high level of controversy exists over the impacts of the Power timber sale.

Potentially Significant Impacts to the Viability of Species Dependent Upon Dense mature and Late Successional Forest Habitat

As touched on earlier, the Power timber sale poses significant cumulative impacts to species dependent upon dense mature and late successional forest habitat. Such habitat was once more abundant in the timber sale area, but past timber harvesting has reduced the amount of dense mature and late successional forest. Consequently, populations of these species may not currently be viable on the Black Hills or their viability may be at risk due to past, present, and reasonably foreseeable logging.

Despite the cumulative (past, present, and reasonably foreseeable) impacts to species dependent upon dense mature and late successional forest habitat, the FS appears to be pushing ahead with cutting down even more dense, mature forest, which will one day turn into late successional habitat that is vital for the survival of these native species. According to the Revised DEA and the FS, these impacts are not significant, yet the Revised DEA provides no explanation as to how the FS assessed the significance of these impacts or what thresholds are typically used to assess the impacts (direct, indirect, and cumulative) to these species.

Thus, it appears there is a high level of uncertainty surrounding the impacts of the Power timber sale to species dependent upon late successional and dense mature forest habitat. That, or the FS is violating NEPA by failing to conduct an adequate analysis and assessment.

This uncertainty is perfectly highlighted throughout the Revised DEA. For instance, the FS concludes that all action alternatives "May adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend toward federal listing or a loss of species viability range wide" for the American marten, black-backed woodpecker, and northern goshawk – all species dependent in some way on dense mature and late successional forest habitat. Yet, nowhere does the Revised DEA reference or present habitat or population trends for these sensitive species, habitat and population distribution data for the project area or the BHNF as a whole, or information explaining how impacts to these species were assessed and what thresholds were used. In fact, the Revised DEA does not even disclose whether populations of these species are currently viable or what even constitutes a viable population. This, despite the fact that there is a definition of viability. See, 36 CFR § 219.19. There does not appear to be any information or analysis supporting the FS's claim that the viability of these species will not be jeopardized or that the species and their habitat will not experience significant impacts. Thus, the impacts to these species are highly uncertain.

This uncertainty is brought more into focus when reviewing the Revised DEA's treatment of the brown creeper. According to the Revised DEA, the brown creeper is a management indicator species that indicates the impacts of forest management actions to late successional and dense mature forest and, assumably, the impacts of forest management actions to other species dependent on late successional and dense mature forest. The Revised DEA also discloses that the habitat of the brown creeper will be negatively impacted (directly, indirectly, and cumulatively) in a variety of ways. However, no population or habitat trend data is provided to provide a context for the conclusion that the Power timber sale will maintain the viability of the brown creeper and the viability of species dependent upon dense mature and late successional forest habitat. The impacts to species dependent upon dense mature and late successional forest habitat are therefore highly uncertain.

Additionally, given the amount of concern expressed over the impacts of logging to species dependent upon late successional and dense mature forest over the years, we find it difficult to believe that a significant level of controversy does not exist over the environmental impacts of the proposed timber sale. Furthermore, this controversy is not simply a matter of opposing logging. Biodiversity Conservation Alliance does not oppose logging. Biodiversity Conservation Alliance supports sound forest management that fully protects the natural values that Congress and the Executive Branch of this government have pledged to protect. In light of the significant lack of mature and late successional forest habitat on the Black Hills and in the Power project area, we are very concerned that the Power timber sale will not protect the natural values of the Black Hills and is not a reflection of sound forest management.

Finally, given that the impacts of the Power timber sale to species dependent upon late successional and dense mature forest habitat are highly uncertain, it is highly likely that the Power timber sale threatens a violation of a federal law meant to protect the environment. Namely, the Power timber sale threatens to violate regulations implementing the National Forest Management Act at 36 CFR § 219.19, which require the FS to maintain viable population of native vertebrate species. A viable population is defined as, "…one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area."

Potentially Significant Impacts to Soils and Waters

The Revised DEA claims that soils and waters will be adequately protected and will not be significantly impacted because Best Management Practices ("BMPs") will be utilized. Yet, the Revised DEA also discloses that BMPs are only effective 79% of the time, although this figure seems to hover between 70 and 80%. While the FS claims that this level of effectiveness is adequately to ensure protection of soil and water resources, we question how this can be so? Given a 79% effectiveness, this also means a 21% ineffectiveness rate. This level of ineffectiveness suggests two things. One, that the impacts to soils and waters are highly uncertain. Indeed, it is difficult to understand how the FS can be 100% certain that soil and water resources will not be significantly impacted when the mitigation measures relied upon are ineffective 21% of the time. And second, since BMPs are ineffective 21% of the time, there is a high likelihood that the Power timber sale may violate state water quality law. Indeed, BMPs are relied upon to not only ensure protection of soil and water resources, but to ensure compliance with South Dakota water quality laws. Yet, since BMPs are not entirely effective, it is difficult to understand how the FS can possibly ensure compliance with state law and assert that the impacts of the Power timber sale are insignificant.

Another indication that the Power timber sale threatens a violation of law is the potential for soil impacts that violate the BHNF Revised Forest Plan. The Revised DEA states, "Under the Proposed Action, the proposed 107 acres of regeneration harvest with dispersed skidding poses a risk of exceeding the 15% [BHNF Revised Forest Plan] standard." Revised DEA, p. 71. While the FS asserts that mitigation measures will ensure compliance with the BHNF Forest Plan, there is no information or analysis presented in the Revised DEA showing this assertion to be true. Regardless, there is a potential for a violation of the BHNF Revised Forest Plan, which would be a violation of federal law. Thus, the impacts of the Power timber sale are significant.

Finally, the impacts to soils and waters are highly controversial. Indeed, in the past year or so, water quality issues on the Black Hill have been a major public and administrative issue. In 2002, the Rocky Mountain Regional Office of the FS ruled that the Environmental Assessment for the Canyon/Nest timber sale on the Hell Canyon Ranger District had failed to adequately analyze and assess impacts to water quality. The issue made news in local newspapers and prompted the FS to revisit the Environmental Assessment. Later on, the South Dakota Department of Environment and Natural Resources responded to a water quality complaint filed by Biodiversity Conservation Alliance and others over the Mercedes timber sale on the Mystic Ranger District. While the Department disagreed with much of the claims (which are sure to become the subject of litigation), the Department agreed that the FS may be required to obtain a general storm water discharge permit before proceeding with the timber sale. This issue also made news in local newspapers and also prompted attention from the Environmental Protection Agency and the Fish and Wildlife Service.

Most recently, Biodiversity Conservation Alliance and others filed a petition to list the Black Hills population of American dipper under the Endangered Species Act. The petition documented that water quality degradation resulting from logging, roads, and road construction was a significant threat to the species and is pushing the population to extinction. While the Fish and Wildlife Service has yet to make a 90-day finding on the petition, the petition does present a wealth of recent science that supports listing of the species. This issue also made news in local newspapers and prompted attention from a variety of agencies. Undoubtedly, the impacts of timber sales, such as the Power timber sale, to water quality are highly controversial. Thus, the impacts of the Power timber sale are significant.

If the FS believes that the impacts of the Power timber sale are not significant, we ask the agency answer the following questions to help explain why:

> How is the proposed action not significant in terms of context? How did the FS measure and assess the context of the impacts of the proposed action? What threshold was used?
>
> How are the impacts to dense mature and late successional forest habitat not significant? What threshold did the FS use to assess the significance of impacts to forest vegetation? How are the impacts to dense mature and late successional forest habitat not significant?
>
> How are the impacts to the viability of species dependent upon dense mature and late successional forest habitat not significant? What threshold did the FS use to assess impacts to the viability of species dependent upon dense mature and late successional forest habitat? What constitutes a viable population of these species? How are the impacts to these species not controversial?
>
> How are the impacts to soils and waters not significant? What threshold did the FS use to assess impacts to soils and waters? How can BMPs be 21% ineffective and still ensure protection of water quality? How are water quality impacts not controversial?

If the FS chooses not to prepare an EIS and does not answer these questions, we will interpret this as a failure to respond to public comment.

Failure to Consider a Range of Reasonable Alternatives

The Revised DEA also fails to adequately analyze a range of reasonable alternatives. Indeed, the only two action alternatives analyzed in the DEA are both very similar, indicating the FS has not developed alternatives to respond to unresolved conflicts over the use and management of natural resources on the BHNF and significant issues identified during the scoping process. See, 42 USC § 4332(2)(E), 40 CFR § 1502.14(a), 36 CFR § 219.12(f), and FSH 1909.15, 14.

For instance, both action alternatives propose similar levels of timber harvesting, despite the fact that comments expressed concerns over the impacts of timber harvesting to wildlife (especially sensitive species of wildlife) and suggested the FS propose little to no timber harvesting. Alternative A proposes to harvest 6.9 million board feet ("MMBF") and the Proposed Action proposes to harvest 6.0 MMBF – a difference of only .9 MMBF. While there is some difference between Alternative A and the Proposed Action, the difference is far from substantive and does not represent a "range" of reasonable alternatives. Indeed, the Proposed Action, while harvesting less timber, is still very near Alternative A -- the maximum harvest alternative. Where is the intermediate alternative (i.e., alternative that harvests an intermediate amount of timber)? Where is the low-end alternative (i.e., alternative that harvests a low amount of timber)?

While the FS may believe that consideration of the No Action Alternative may address commentors' concerns of timber harvesting, this misses the point. While the commentors expressed concern over the impacts of timber harvesting, commentors also suggested several "Action" alternatives. In our scoping comments, we specifically requested the FS consider alternatives that decommission roads, that do not provide commercial timber, and that propose only prescribed burning. Unfortunately, the FS never considered these alternatives in detail and therefore failed to develop alternatives that respond to unresolved conflicts over the use and management of BHNF resources and to significant issues identified during the scoping process.

There are also more similarities between the Action Alternatives. As Table 1 discloses, there are no substantive differences between the Action Alternatives:

Table 1. Similarities Between Action Alternatives

Action	Proposed Action	Alternative A
Precommercial thinning	**133 acres**	**133 acres**
Commercial thinning	**2,420 acres**	**2,391 acres**
Regeneration harvest	**107 acres**	**107 acres**
Overstory removal	**793 acres**	**793 acres**
Patch cut	**0**	**131 acres**
Conifer encroachment in meadows	**424 acres**	**424 acres**
Conifer encroachment in hardwoods	**190 acres**	**190 acres**
Total Acres Vegetation Management	**4,067**	**4,169**
Road reconstruction	**7 miles**	**7 miles**
Road pre-use maintenance	**46.5 miles**	**46.5 miles**
System Road Closure	**11 miles**	**0**
Non-system road closure	**21 miles**	**21 miles**

As Table 1 shows, only two actions appear to vary, although it is difficult to determine whether this difference is significant. The Proposed Action proposes no patch cuts and will closure more system roads while Alternative A has patch cuts and will close less system roads. It is difficult to understand how the alternatives were developed to address significant issues and unresolved conflicts. And, because the proposed actions are not substantively different, it is no surprise that the effects of both action alternatives are strikingly similar:

Table 2. Similar Impacts Under Both Action Alternatives.

Impact	Proposed Action	Alternative A
Acres of ponderosa pine in structural stage 4C harvested	**1,254 acres**	**1,254 acres**
Treatments in goshawk post-fledgling area 1	**208 acres**	**208 acres**
Treatments in goshawk post-fledging area 2	**83 acres**	**140 acres**
Impacts to American marten	**"May adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend toward federal listing or a loss of species viability rangewide."**	**"May adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend toward federal listing or a loss of species viability rangewide."**
Impacts to northern goshawk	**"May adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend toward federal listing or a loss of species viability rangewide."**	**"May adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend toward federal listing or a loss of species viability rangewide."**
Impacts to flammulated owl	**"May adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend toward federal listing or a loss of species viability rangewide."**	**"May adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend toward federal listing or a loss of species viability rangewide."**
Impacts to black-backed woodpecker	**"May adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend toward federal listing or a loss of species viability rangewide."**	**"May adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend toward federal listing or a loss of species viability rangewide."**
Impacts to three-toed woodpecker	**"May adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend toward federal listing or a loss of species viability rangewide."**	**"May adversely impact individuals, but is not likely to result in a loss of viability on the planning area, nor cause a trend toward federal listing or a loss of species viability rangewide."**
Impacts to brown creeper	**"Dense, mature conifer stands would decrease from 3,352 to 2,098 acres (-37%) under both action alternatives"**	**"Dense, mature conifer stands would decrease from 3,352 to 2,098 acres (-37%) under both action alternatives"**

Table 2 highlights perfectly how the FS failed to analyze in detail alternatives that address unresolved conflicts. Indeed, while "Threatened, Endangered, Sensitive (TES) and Management Indicator Species" was identified as a "significant issue" during the scoping process, Table 2 shows that the impacts of the Power timber sale to several sensitive wildlife species and a management indicator species and their habitat are the same for both action alternatives. For instance, the same amount of goshawk habitat will be treated in PFA 1 for both alternatives, indicating the FS has not responded to public concerns over the impacts of the Power timber sale to the sensitive goshawk. And, while different amounts of PFA 2 will be treated, the difference is far from significant. Similarly, the FS concludes that both action alternatives will impact several sensitive species in the same way and to the same extent. It is difficult to understand how the FS has appropriately responded to concerns over threatened, endangered, sensitive, and management indicator species when there is no difference in how action alternatives affect these species.

Further highlighting the failure of the FS to analyze a range of reasonable alternatives is the fact that several proposed alternatives were eliminated for erroneous reasons. For instance, an alternative that provides no commercial timber was eliminated because, "The Revised Forest Plan includes timber production as a need in the Power management areas. This need would not be met under a no-timber alternative." Revised DEA, p. 28. However, this statement is completely fallacious. First of all, the Revised Forest Plan makes no site-specific commitment of resources. Therefore, there is no requirement in the Revised Forest Plan to produce timber from the Power timber sale area. Second, the Forest Service is not required to produce timber on the BHNF. In a recent appeal decision, the Regional Office stated concretely that, "The Forest Supervisor is not required to make available for harvest any trees, merchantable or not." January 8, 2002 Appeal Recommendation and Decision on Appeal #02-02-02-0003 of the Little Bighorn Prescribed Burn, Bighorn National Forest. Third, the Forest Service appears to be elevating the "need" to produce timber above all other "needs," despite the fact that there are several components of the purpose and need for the Power timber sale. Essentially, the "need" to produce commercial timber appears to be the driving goal of the Power timber sale, despite the fact that several other goals, including providing for wildlife habitat, are listed and presented as coequals.

Finally, by eliminating an alternative simply because it does not provide commercial timber, the FS is unreasonably narrowing the purpose and need as to only be accomplished by one alternative – an alternative that provides commercial timber. Either the purpose and need is flawed or the Responsible Official is a timber beast and only desires to get the cut out. If the Responsible Official simply desires to get the cut out, then please indicate this in an EIS.

Furthermore, the Revised DEA supports analyzing in detail an alternative that provides no commercial timber because such an alternative would meet one of the goals of the Power timber sale, to "Provide for a variety of life through management of biologically diverse ecosystems." For example, the DEA discloses that under the No Action Alternative, goshawk habitat would not be treated and several other sensitive and management indicator species would not be adversely impacted. Although the No Action alternative IS NOT THE SAME AS AN ALTERNATIVE THAT PROPOSES NO COMMERICAL TIMBER, it does indicate that an alternative proposing less commercial timber harvesting than the proposed Action Alternatives will benefit a number of wildlife species and forest diversity. Thus, an alternative that proposes no commercial timber harvest meets part of the goals for the Power timber sale.

We therefore request the FS correct these deficiencies in either a revised draft environmental analysis for the Power timber sale or a draft Environmental Impact Statement for the Power timber sale. We request the FS rigorously explore and objectively evaluate a range of reasonable alternatives that respond to unresolved conflicts over the use and management of the natural resources of the BHNF and that respond to significant issues identified during the scoping process. Accordingly, we request the FS analyze alternatives with substantive differences and that actually result in substantive on-the-ground differences in the way wildlife and wildlife habitat, especially sensitive species and their habitat, are affected.

Other Concerns with Revised DEA

We seriously question the effectiveness of snag mitigation measures and green tree retention measures in protecting sensitive and other cavity nesting and/or snag dependent species at the present. According to the Revised DEA, large diameter trees and snags are lacking in the Power timber sale area. Yet, the FS relies entirely on meeting snag mitigation measures and the existence of large diameter trees to ensure several species are adequately protected. How can this be? How can species like the brown creeper, black-backed woodpecker, three-toed woodpecker, pygmy nuthatch, and others be protected when suitable habitat conditions don't even exist and won't exist for decades? The FS needs to show how prospectively meeting snag standards will protect species in the present.

There really is no discussion of the effects of treating mixed conifer/hardwood stands to native species. The northern flying squirrel and ruffed grouse may depend on such habitat (see e.g., Reunanen et al. 2000), yet the FS is proposing to remove conifers in hardwood stands throughout the area, thus reducing the availability of habitat for these species. We request an EIS fully discuss the effects of conifer removal from hardwood stands to species dependent upon mixed habitat. Additionally, we request an EIS fully analyze and assess the impacts of the Power timber sale to northern flying squirrel and ruffed grouse.

The discussion of impacts to the American dipper in the Revised DEA are cursory and unsupported. Based on our readings of other Environmental Assessments prepared on the BHNF, this language is "canned." We are very sure that, in light of the petition filed by Biodiversity Conservation Alliance, the Supervisor's Office or perhaps the Regional Office of the FS has merely given direction to district rangers and ID Team Leaders to include such canned language. Therefore, we are including the following language from our petition in these comments to help the FS adequately analyze and assess impacts to the American dipper and its habitat (table and figures omitted):

iii. Silviculture Activities

Anderson (2001) states, "Harvesting near waterways used by dippers is likely to have a negative effect on the water quality and dippers themselves" (p. 35).

The USFS (1996a) states:

> Harvesting timber affects soils through such activities as skidding, decking, site preparation and machine piling of slash. These activities will result in various degrees of soil displacement, soil compaction, and disturbance to vegetative ground cover within cutting units. (p. III-25)

The agency further concludes that, "Ground disturbance increases soil erosion rates by leaving areas of unprotected soil." (USFS 1996a, p. III-73). Waters (1995) states, "The relative contribution of sediment appears to be moderate from clear-cutting (i.e., higher than from selective cutting or patch-cutting), moderately high from skid trails, minimal from yarding (higher if heavy machinery is used near streams), and moderate from site-preparation." The USFS (2002e) discloses that logging and other silvicultural treatments on slopes greater than 30% and in severe erosion areas lead to "localized areas of rilling and gullying" (p. 3-14). The USFS (2002e) defines "Rillying and gullying" as, "the movement of water over the soil surface, creating small, surface flows of water that carry sediment with them" (p. C-21). Many timber sales authorized by the USFS include logging on slopes that are greater than 30%. In the Rapid Creek watershed, the USFS (2002j) generally states that that, "The cumulative effects of all land uses have resulted in sedimentation of streams and concerns about nutrient enrichment in downstream reservoirs" (p. 118).

Every acre of the BHNF has been logged at least once in the past century, with most parts logged three to four times (Mehl 1992, Shinneman 1996, Shinneman and Baker 1997). The USFS has allowed and currently allows logging (in the form of a various silvicultural treatments) to occur in the French Creek, Box Elder Creek, Elk Creek, Bear Butte Creek, Whitewood Creek, and Spearfish Creek watersheds (USFS 1996a, USFS 1996b). The USFS is planning on implementing or is currently implementing numerous logging projects within these watersheds. The SDDENR has attributed water quality problems on the BHNF, especially excessive sedimentation with, among other things, silviculture activities (SDDENR 1998, 2000, 2002b). Logging and associated activities on the Black Hills create and have contributed to sediment problems on streams that could be or are capable of supporting American dipper on the Black Hills.

While extensive logging is currently underway in the French Creek, Box Elder Creek, Elk Creek, Bear Butte Creek, Whitewood Creek, and Spearfish Creek watersheds, there are proposed logging activities that imminently threaten the continued existence of the Black Hills population of American dipper. The Peak, Power, Mineral, and Riflepit timber sales are all proposed to be implemented in the Spearfish Creek watershed. Existing science strongly suggests these timber sales, and the erosion and sedimentation impacts inherent in silviculture activities on the Black Hills, pose imminent and significant risks to the well-being of the American dipper on Spearfish Creek and thus poses risks to the continued existence of the dipper on the Black Hills (Price and Bock 1983, Waters 1995, USFS 1996a, Backlund 2001, USFS 2002b, Feck 2002). Combined with the impacts of past, present, and proposed timber sales in the Spearfish Creek watershed, these sales place the population at a significant risk of extirpation on the Black Hills.

Additionally, other proposed timber sales threaten to further degrade the health of American dipper habitat on Whitewood Creek, Bear Butte Creek, Elk Creek, Box Elder Creek, and Rapid Creek. Due to their size and potential impacts, the Prairie timber sale and the Elk Bugs and Fuel timber sale are by far the most imminent and serious threats to the well-being of the American dipper on the Black Hills. The USFS has already concluded that an environmental impact statement will be prepared for both the Prairie and Elk Bugs and Fuel timber sales, indicating both timber sales will significantly impact the environment. Cumulatively, both timber sales will affect over 23,000 acres of land in the Bear Butte Creek, Elk Creek, Box Elder Creek, and Rapid Creek watersheds.

A final decision for the Prairie timber sale is expected to be issued in April of 2003 and a final decision for the Elk Bugs and Fuel timber sale is expected to be issued in July of 2003. Other proposed timber sales that pose significant risks to the well-being of the American dipper include the Canyon/Nest, Mercedes, Mineral, Research/Rochford, and Riflepit timber sales. There are also numerous other timber sales that are currently underway and already posing significant risks to the well-being of the dipper on the Black Hills.

iv. Roads

Roads contribute sediment to streams, thereby posing serious threats to the well-being of the Black Hills population of American dipper and its habitat (Backlund 2001). Citing the USFS (1996a), Anderson (2001) states that, "Roads can severely impact streams and riparian habitat through erosion, sedimentation, change in vegetation, and changes in stream morphology." She continues, "Such changes could have a large negative impact on the dippers" (p. 37).

The Black Hills are covered with an extensive road system (USFS 1996a). See Figure 8. The USFS estimates there are "5,204 miles" of total Forest Service System Roads (USFS 1996a, p. III-426). Additionally, the agency estimates there are an additional "3,430" miles of user-created roads (USFS 1996a, p. III-426). Extensive road construction has been undertaken to facilitate silviculture activities, as well as access to mining activities, private lands, and for other reasons (USFS 1996a). The USFS (1996a) states, "Roads can result in more erosion than any other single management activity" (p. III-30). The USFS (1996a) further states:

> Roads undergo a great amount of erosion. While this is especially true in the first 1-3 years after construction, continual usage of the road causes continual erosion. Roads provide miles of unvegetated, often unsurfaced, dirt. Because of the quantity of area they cover, and because many of them are adjacent to or cross stream channels, roads are the greatest source and delivery system of sediment to channels. (p. III-73)

(emphasis added). Most recently, roads have been identified as the primary source of sediment problems in the Lakes timber sale area (USFS 2002a), Mercedes timber sale area (USFS 2002j), Canyon/Nest timber sale area (USFS 2002e), and Peak timber sale area (USFS 2002b), all of which are impacting or will very soon impact streams that presently support or have historically supported American dipper. In the Mercedes timber sale area, the USFS (2002j) states, "County road 231 will continue to contribute large quantities of sediment to Rapid Creek" (p. 120). The SDDENR (1998, 2000, 2002b) identifies "silviculture activities," which includes road construction associated with logging, as a source of impairment on many Black Hills streams. In 2002, French Creek, Rapid Creek, and Castle Creek, a tributary to Rapid Creek, were identified as suffering water quality problems from silviculture activities (SDDENR 2002b).

Waters (1995, citing Cederholm et al. 1981) states:

> The density and length of logging road distribution can be major factors in determining the level of sediment production. For example, the greatest accumulation of fine sediments in streambeds occurred when the road area exceeded 2.5% of the total basin area. The authors also calculated that total road lengths of 2.5 km of road per square kilometer of the basin produced sediment more than four times natural rates. (p. 35)

The USFS (2002e) elucidates, "Road density is an indicator of potential problems with sediment, compaction, or other soil concerns" (p. 3-7). The USFS (1996a) discloses road densities on the BHNF often exceed 5.0 miles per square mile on the BHNF (8.05 km/km^2), with some reaching 8.0 miles per square mile (12.88 km/km^2) (USFS 1996a). This strongly indicates roads are contributing excessive amounts of sediment into Black Hills streams.

In addressing road densities, the USFS oftentimes claims to reduce road-related impacts by placing gates in front of roads (see e.g., USFS 2002a, j).

However, in many instances, gates are ineffective on the BHNF in alleviating road-related impacts. The USFS (2002a) states, "Previous attempts to close roads have not been entirely successful" (p. 84). The USFS (1997e) also states, "While closure will allow revegetation and reduce sediment travel due to vehicular use, it does not in itself solve any problems related to ditches or stream crossings" (p. 26). In another instance, the USFS (1998c) states, "Gentle terrain makes some of the [Crawford] area difficult to close" (p. 52). The USFWS (1993c) has also documented how roads that are closed with gates or signs are ineffective in eliminating road-related environmental impacts. The agency further documented that roads used only for administrative purposes often fail to eliminate road-related impacts due to continued use (USFWS 1993c). It is highly questionable whether road-related environmental impacts are effectively addressed by placing gates in front of roads.

User-created roads are also a problem on the BHNF (see e.g., USFS 2002a, b, e, j). According to the USFS (1996a), there are approximately 3,430 miles of user-created roads on the BHNF. The USFS notes that sediment sources in the Lakes timber sale area in the Rapid Creek watershed are system roads, unclassified roads, or channel alterations due to roads (USFS 2002a). The USFS has recently documented the existence of many miles of user-created roads in the Lakes, Peak, Canyon/Nest, and Mercedes timber sale areas, all of which impact streams that presently support or have historically supported American dipper (USFS 2002a, b, e, j).
Many miles of roads (paved, gravel, dirt, primitive) have been constructed and reconstructed within the French Creek, Box Elder Creek, Elk Creek, Bear Butte Creek, and Spearfish Creek watersheds, many adjacent to or crossing these streams (USFS 1996a). Marriott and Faber-Langendoen state, "Roads [on the Black Hills] have been constructed in many drainage bottoms causing rechannelling of creeks, increased sedimentation, and increased access" (p. 21). Roads have caused and are currently causing sediment problems on segments of Spearfish Creek (USFS 2002d). The USFS is planning on constructing or reconstructing many miles of roads within these watersheds. There continues to be regular use and varying degrees of maintenance of roads in these drainages and consequently continued sources of sediment in these streams.

Since 1997 alone, at least 838.5 miles of road construction and reconstruction on the BHNF has been proposed by the USFS. This roughly adds up to nearly 170 miles of roads constructed or reconstructed per year on the BHNF. The USFS (1996a) estimates that between the years 1997 and 2007, the amount of roads on the BHNF will increase by "104" miles (p. II-60). Through the Canyon/Nest, Elk Bugs and Fuel, Mercedes, Mineral, Power, and Riflepit timber sales, 179.3 miles of roads will be constructed and reconstructed. It is unknown at this time how many miles of road construction and reconstruction will be authorized by the Prairie and Research/Rochford timber sales, but the USFS will most likely propose to add further mileage. These timber sales and the road construction and reconstruction that has been authorized or that will very soon be authorized pose significant risks to the well-being of the Black Hills population of American dipper. The road construction and reconstruction authorized by these timber sales will impact Spearfish Creek, Whitewood Creek, Bear Butte Creek, Elk Creek, Box Elder Creek, and Rapid Creek and thus pose detrimental impacts to the Black Hills population of American dipper and its habitat. The Mineral, Peak, Power, and Riflepit timber sales in particular pose significant threats to the continued existence of the American dipper on Spearfish Creek, the only stream now capable of supporting a self-sustaining population of American dipper on the Black Hills.

Biodiversity Conservation Alliance's full petition can be found at www.voiceforthewild.org.

In discussing impacts to three-toed woodpecker, the FS overlooks the fact that the species has been found in ponderosa pine and hardwood habitat in the BHNF (Mohren 2002).

Therefore, simply because spruce will not be directly harvested, does not mean the species will not be impacted.

Additionally, the Revised DEA fails in man regards to provide an adequate assessment of cumulative impacts. For instance, the Revised DEA states, "Cumulative effects of past and current projects include moving much of the dense, mature conifer forest to more open conditions or converting old stands to young forest." Revised DEA, p. 68. Is this a significant impact? If not, why not? Similarly, the Revised DEA fails to assess the cumulative impacts to species associated with dense mature and late successional forest, such as the brown creeper, black-backed woodpecker, three-toed woodpecker, northern goshawk, northern flying squirrel, pine marten, and others.

It is difficult to understand the Revised DEA's analysis and assessment of impacts to sensitive plants and other plant species of concern. For instance, the Revised DEA states on page 67 that, "…effects would be minimal under all alternatives," when discussing the impacts to sensitive plants. What does "minimal" mean? When discussing the impacts to other plants of concern, the Revised DEA states, "Effects on these species would be minimal to nonexistent under all alternatives." Id. Again, what does this mean? To this end, we request the FS fully explain how sensitive and other plant species of concern will be "avoided" or will not be impacted.

Finally, there is no discussion in the economics section of the Revised DEA (pp. 77-78) of the impacts to economic values associated with wildlife and recreation on the BHNF. Instead, the entire discussion is about the economic benefits of timber production. Indeed, the entire economic assessment is based on how much timber is produced from each alternative. However, we know that counties, the State of South Dakota, and even the Forest Service makes money off of hunting, off of wildlife viewing, bird watching, camping, hiking, etc. Where does this value fit in? Why has the FS overlooked other such important economic values associated with the BHNF? Does the FS honestly believe that revenue only comes from selling logs? For the FS to insure the scientific and professional integrity of its NEPA document, the agency must analyze and assess the potentially significant impacts of the Power timber sale to economic values associated with wildlife, recreation, hunting, etc.

Sincerely,

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References

Anderson, S.H. and B.J. Crompton. 2002. The effects of shelterwood logging on bird community composition in the Black Hills, Wyoming. Forest Science 48(2):365-372.

Anderson, T. 2002. Conservation assessment of the American dipper, *Cinclus mexicanus* in the Black Hills National Forest. 60 p.

Backlund, D. 2001. "The American dipper, *Cinclus mexicanus*, in the Black Hills of South Dakota: past and present." South Dakota Department of Game, Fish and Parks, Pierre, SD. 16 p.

Baker, W.L. and D. Ehle. 2001. Uncertainty in surface-fire history: the case of ponderosa pine forests in the western United States. Canadian Journal of Forest Research. 31:1205-1226.

Cederholm, C.J., L.M. Reid, and E.O. Salo. 1981. Cumulative effects of logging road sediment on salmonid populations in the Clearwater River, Washington: a project summary. Pags 373-398 in Salo and Cundy eds. Streamside management: forestry and fishery interactions.

Dodge, I.R. 1876. The Black Hills: a minute description of the routes, scenery, soil, climate, timber, gold, geology, zoology, etc. James Miller, publisher, New York.

Feck, J.M. 2002. Assessment of the American dipper (*Cinclus mexicanus*) as a biological indicator of water quality. M.S. Thesis, University of Wyoming, Laramie. 41 p.

Frest, T.J. and E.J. Johannes. 2002. Land Snail Survey of the Black Hills National Forest, South Dakota and Wyoming, Summary Report, 1991-2001. Final Report to the USDA Forest Service, Black Hills National Forest. Deixis Consultants, Seattle, Washington. 127 p.

Graves, H.S. 1899. The Black Hills Forest Reserve. Pages 67-164 in the nineteenth annual report of the survey, 1897-1898. Part V. Forest Reserves. U.S. Geological Survey, Washington, D.C.

Marriott, H.J. and D. Faber-Langendoen. 2000. Riparian and Wetland Communities of the Black Hills. The Nature Conservancy, 1313 5th St. SE, Ste. 314, Minneapolis, MN 55414.

Mattson, T., S. Buskirk, and N. Stanton. 1996. Roost sites of the silver-haired bat (*Lasionycteris noctivagans*) in the Black Hills, South Dakota. Great Basin Naturalist 56:247-253.

Mehl, M.S. 1992. Old-growth descriptions for the major forest cover types in the Rocky Mountain Region. In Kaufmann, M.R., W.H. Moir, R.L. Bassett, tech. coordinators, Old-Growth Forests in the Southwest and Rocky Mountain Regions Proceedings of a Workshop. USDA Forest Service General Technical Report RM-213, Ft. Collins, CO.

Mohren, S.R. 2002. Habitat Evaluation and Density Estimates for the Black-backed Woodpecker (*Picoides arcticus*) and the Three-toed Woodpecker (*Picoides tridactylus*) in the Black Hills National Forest. M.S. Thesis, University of Wyoming, Laramie. 110 pp.

Newton, H and W.P. Jenney. 1880. Report of the geology and resources of the Black Hills of Dakota. U.S. Geographical and Geological Survey, Rocky Mountain Region. U.S. Government Printing Office, Washington, D.C.

Price, F.E. and C.E. Bock. 1973. Polygyny in the dipper. Condor 75:457-459.

Reunanen, P., M. Mönkkönen, and A. Nikula. 2000. Managing boreal forest landscapes for flying squirrels. Conservation Biology 14(1):218-226.

SDDENR. 1998. 1998 South Dakota Report to Congress – 305(b) Water Quality Assessment. Pierre, SD 57501.

SDDENR. 2000. 2000 South Dakota Report to Congress – 305(b) Water Quality Assessment. Pierre, SD 57501.

SDDENR. 2002a. South Dakota 2002 Total Maximum Daily Load Waterbodies. Pierre, SD 57501.

SDDENR. 2002b. 2002 South Dakota Report to Congress – 305(b) Water Quality Assessment. Pierre, SD 57501.

Shinneman, D.J. 1996, An analysis of range of natural variability, roads, and timber harvesting in a Black Hills ponderosa pine forest landscape. M.A. Thesis, University of Wyoming: Laramie, WY. 99 p.

Shinneman, D.J. and W.L. Baker. 1997. Nonequilibrium dynamics between catastrophic disturbances and old-growth forests in ponderosa pine landscapes of the Black Hills. Conservation Biology 11(6):1276-1288.

Shinneman, D.J. and W.L. Baker. 2000. Impact of logging and roads on a Black Hills ponderosa pine forest landscape. In Knight, R.L., F.W. Smith, S.W. Buskirk, W.H. Romme, and W.L. Baker, eds. Forest Fragmentation in the Southern Rocky Mountains. University Press of Colorado, Boulder.

USFS. 1996a. Revised Land and Resource Management Plan Final Environmental Impact Statement for the Black Hills National Forest. Custer, South Dakota.

USFS. 1996b. Revised Land and Resource Management Plan for the Black Hills National Forest. Custer, South Dakota.

USFS. 2000. Expert Interview Summary for the Black Hills National Forest Land and Resource Management Plan Amendment. USDA Forest Service, Black Hills National Forest, Custer, SD.

USFS. 2002a. Lakes Final Environmental Assessment. USDA Forest Service, Black Hills National Forest, Mystic Ranger District, Rapid City, SD.

USFS. 2002b. Peak Project Area Final Environmental Assessment. USDA Forest Service, Black Hills National Forest, Northern Hills Ranger District, Spearfish, SD.

USFS. 2002d. Spearfish Canyon Landscape Assessment. Northern Hills Ranger District, Black Hills National Forest, South Dakota.

USFS. 2002e. Canyon/Nest Project Decision Notice/FONSI and Final Environmental Assessment. Black Hills National Forest, Hell Canyon Ranger District, Custer County, SD.

USFS. 2002j. Mercedes Final Environmental Assessment. USDA Forest Service, Black Hills National Forest, Mystic Ranger District, Rapid City, South Dakota.

USFWS. 1993c. Grizzly Bear Recovery Plan. U.S. Department of Interior, U.S. Fish and Wildlife Service, Missoula, MT. 181 p.

Waters, T.F. 1995. Sediment in streams. American Fisheries Society Monograph 7. American Fisheries Society, Bethesda, MD.

[1] see e.g., Biodiversity Associates et al. Appeal of 1997 BHNF Revised Land and Resource Management Plan, Biodiversity Associates et al. 2002 Peak Project Appeal, Biodiversity Associates' et al. 2002 Lakes Project Appeal, Biodiversity Associates' et al. 2001 comments on the Phase I Amendment to the BHNF Revised Land and Resource Management Plan ("Phase I Amendment"), Biodiversity Associates' et al. 2001 Appeal of the Phase I Amendment, and Biodiversity Associates' et al. 2002 scoping comments for the Phase II Amendment to the BHNF Revised Land and Resource Management Plan, Biodiversity Conservation Alliances 2002 scoping comments for the Elk Bugs and Fuel Project, Biodiversity Conservation Alliances et al.'s scoping comments for the Prairie project Biodiversity Conservation Alliances' 2003 comments on the Welcome-Sand timber sale proposal, comments on the Fanny timber sale Draft Environmental Assessment, etc. We incorporate by reference the aforementioned comments and appeals.

SOUTH DAKOTA DEPARTMENT OF AGRICULTURE

RESOURCE CONSERVATION & FORESTRY

3305 ½ West South Street, Rapid City, SD 57702-8160
(605) 394-6122 (605) 394-2549 FAX

May 30, 2003

Power EA
c/o Rochelle Desser, USDA Forest Service
201 Caves Highway
Cave Junction OR 97523
Fax: 541-592-4010
Email: rdesser@fs.fed.us

SUBJECT: Comments regarding the Revised Draft Environmental Assessment for the Power Vegetation Management Project, Black Hills National Forest.

Thank you for the opportunity to provide comments on the Power Vegetation Management Project on the Northern Hills Ranger District of the Black Hills National Forest.

Page 9, Regeneration Harvest. The discussion of residual trees is confusing. In the second sentence, the author states that 20-40 square feet of basal area will remain following harvest. The fourth sentence states additional trees will be retained to leave an average of two live trees per acre on the south and west slopes and four trees per acre on north and east slopes. To leave 20 square feet of basal area in only two trees per acre would require the average diameter of leave trees to be about 43 inches. To achieve 40 BA in only two trees per acre would require the average diameter of leave trees to exceed 60 inches. I don't think the Forest Service will find any trees in the 43 to 60 inch diameter size in the Black Hills. If the Forest Service wants to achieve a residual basal area of 20-40 square feet per acre, they shouldn't worry about needing additional leave trees to accomplish their 2 to 4 tree per acre minimum.

Page 35, Tables 7, 8 & 9. The acreage of structural stage 5 is missing from these tables. The tables give the impression that there are no structural stage 5 acres in the management area, nor will there be any in the future. The 710 acres of late succession stands that exist in the management areas should be represented in these tables.

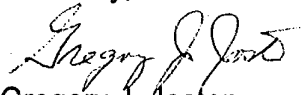
Page 37, Late Succession. The discussion indicates that sites identified for certain treatments would not develop into late succession habitat for many decades. However, it does not indicate how many acres of untreated stands would become late succession, given the absence of natural disturbance. An estimate of acres that would be expected to become late succession, given no disturbance, would be beneficial.

Page 38, Mountain Pine Beetle. The discussion indicates that the current population of Mountain Pine Beetle in the management area is endemic. This statement is supported by recent surveys conducted by the USDA Forest Service Intermountain Research Station. However, Mountain Pine Beetle populations have reached epidemic levels in two areas of the Forest, and the beetle population and resulting mortality is increasing Forest-wide including areas immediately adjacent to the management area. The Forest Service should expect the beetle population and ponderosa pine mortality to increase in the management area, and threaten the existing and post-treatment stand structures.

Page 39. Direct and Indirect Effects on Vegetation – No Action Alternative. The first paragraph adequately explains the increased risk of insect, disease, and fire mortality that can be expected with the unnaturally high stand densities. However, the third paragraph contradicts the first paragraph by stating that "Over the long term, canopy closures and stand ages would increase, providing habitat for species associated with older forest conditions. Early structural stage acreage would decrease, leaving fewer habitats available for species associated with early seral and open forest conditions." I must dispute the third paragraph. The canopy closures would be short term at best. Over the long term, insects and fire will reduce the canopy coverage and move the forest to a more natural seral condition. The Mountain Pine Beetle epidemic and recent large fire events are moving large areas of the Forest to a seral condition right now. Under natural conditions, the ponderosa pine ecosystem in the Black Hills is a disturbance prone ecosystem. Discussion of the no action alternative should not give the reader the unrealistic impression that, absent human induced management, the forest will move unabated toward closed canopy conditions. Such conditions are only temporary.

Page 49. Direct and Indirect Effects on Goshawk – No Action Alternative. The discussion indicates the distribution of vegetation structural stages would move toward mature and old forests, improving nesting habitat, but not post-fledging or foraging habitat. This assumption implies the absence of natural disturbances in the management area under the no-action alternative and should be stated as such, along with the caveat that the areas may not be sustainable under a natural disturbance regime.

Sincerely,



Gregory J. Josten
Senior Forester

The following comment was electronically submitted on May 28, 2003:

Hi Rochelle-
A couple of comments on the Power EA in addition to those the Black Hills Forest Resource Association already submitted.

1. There's a point-of-clarification that needs to be made with the brief discussion of the "No Timber" alternative that was eliminated from consideration. It insinuates that prescribed fire and noncommercial/precommercial/POL thinning would accomplish the District's desired reduction in mountain pine beetle risk. This is erroneous. MPB are not known to infest trees less than 8 inches DBH - the only way to non-commercially thin for MPB would be to implement the prescription, and then not sell the logs (a scenario we find ludicrous).

2. Given the risk of fire ignition associated with utility lines in the project area, it may be prudent to consider treatments - perhaps in the form of fuel breaks - on FS lands adjacent to the utility right-of-way. This would include portions of Sections 34, 35, 25, 30, 29, and 20 not currently proposed for treatment.

3. Is there some way to make this project more economical?

4. There are potential impacts on the American dipper that would be incurred by a wildfire event in the project area. These should be noted, along with the decrease in risk that will stem from the implementation of either action alternative. It may also be of interest to the District that the US Fish and Wildlife Service has, since the publication of the Draft EA, determined that there exists "no compelling evidence for emergency listing [of American dippers] at this time." Contact the SD FWS Field Office for a copy of the letter.

Thanks for your consideration.

Sincerely,

Aaron Everett
Forest Programs Manager

_____
"Education is the ability to listen to almost anything without losing your temper or your self-confidence." (Robert Frost)

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The following comment was electronically submitted May 28, 2003:

Dear Rochelle,

We just received the Revised Draft Environmental Assessment for the Northern Hills Ranger District.

As we discussed with you last year we own approximately 100 acres in the Rifle Pit Canyon off of Forest Service Road #106. The road is immediately next to the O'neil Pass Lodge.

Our primary concern is with the Prescribed Burn shown on Map 5 of Alternative A.

This Map 5 shows that Section 16 has prescribed burn areas on the western edge of Section 16. The western border of Section 16 is immediately contiguous to our property in Section 17.

We would strongly prefer an alternative for Section 16 that does not require prescribed burning due to the difficulty in controlling prescribed burns.

Our property is already subdivided. We plan a real estate development.

The value of the subdivided property is directly dependent upon the presence of the large trees and grassy meadows on the property.

We would prefer not to take the risk of the Forest Service prescribed burn getting out of control and spreading to the trees on our land.

Historically, there have been a number of Forest Service "controlled burns" in the Black Hills which have become "uncontrolled" . These "uncontrolled burns" have damaged nearby private property.

If a controlled burn is going to used in Section 16 and Section 21 of Map 5 we would like to participate in setting up the procedures for managing the prescribed burn for Sections 16 and 21 including the continual monitoring of weather and wind conditions and the presence of a Forest Service person on the ground located in Section 16 with the authority to cancel the prescribed burn if weather and wind conditions change immediately prior to the burn.

We look forward to your response.

Best regards,

Richard and Marcia Maguire

May 29, 2003

Power Vegetation Management Project
ATTN Dave Atkins
Northern Hills Ranger District
Spearfish, SD
57783

Dear Mr. Atkins:

This letter is in response to the Forest Service's request for public comment on the Power EA on the Northern Hills Ranger District of the Black Hills National Forest.

The project analysis should consider the importance of commercial and noncommercial silvicultural treatments in helping to achieve Objective 206 and 217, and in helping to generate the KV funding needed to achieve Objective 222. The project analysis should disclose and consider the importance of silvicultural treatments in helping to generate revenue to help toward achieving Objectives 230, 231, and 232.

The USFS needs to know that commercial timber harvesting is one of the most important tools and efficient methods the USFS has in helping it manage the BHNF to meet the biological, economic, and social management objectives that have been identified. Without a healthy forest products industry, the costs of managing the BHNF to our society would be enormous. We cringe when we see how other national forests struggle with their forest management needs that do not have the type industrial infrastructure we are fortunate to have.

The BHNF claims that the project area does not meet Phase I Standards for snag density. When was the snag data collected. It is hard for us to believe that this area is low on snags due to increasing MPB activity and wind and snow damage of last couple of years. We also do not like the idea that every tree that is 20 inches and greater in diameter is going to be left.

There appears to be some potential for conflict between the proposed summer and winter operating restrictions pertaining to timber harvest activities. Skidding on certain soils is only going to be allowed when soil is frozen, has 1 foot of snow cover or the soil moisture is below the plastic limit. Regeneration harvest units will not be yarded when the ground is frozen in order to ensure site preparation for pine regeneration. We believe these restrictions to minimize soil compaction are not warranted and that most if not all of this project area has been harvested without any restrictions in the past which has caused little if any soil compaction problems. This same sentiment is echoed on page 72 under **Cumulative Effects on Soil and Water.** On 3 recent timber sales less than 5% soil compaction was found which is much less than the Forest Plan Standard of 15%.

Only 4000 acres or 30% of the planning unit are being treated through this project and other current timber sales Pond Hellsgate and Bigmac. Why???

We again reiterate that we are very concerned about the number of roads that are being proposed to be closed. We request that before the BHNF closes any of the roads its RS2477 status should be determined. If it is found that the road does qualify for this designation then the BHNF needs to consult with Lawrence County before the road is closed and/or obliterated.

Many of the actions proposed for this project will have significant cost. Precommercial thinning, conifer removal from hardwoods and meadows, post logging slash treatment including 3141 acres of prescribe burning, closing 11 miles of system roads and 21 miles of non-system roads most likely will cost somewhere between $500,000 and $1,000,000. Most of these actions have nothing to do with selling timber which on this sale should produce around $600,000 of gross receipts. We encourage the USFS to make sure that these costs are correctly identified so that the Power timber sale does not get incorrectly identified as below cost.

Prescribe burning acreage is enormous and will be very costly and difficult to apply. We believe that there should be a maximum standard for acceptable levels of tree mortality. A post fire audit needs to occur to make sure that these objective are being met.

The importance of monitoring is mentioned in the Draft. We agree that monitoring should be a very important part of ensuring that the objectives that were identified and assumptions that were made are indeed met and correct. Too many times the USFS makes qualified claims that increase the cost and complexity of applying a treatment without actually evaluating whether it occurs and if so to what extent. Soil compaction impact is a good example.

Treatment of stands that have moderate to high mountain pine beetle risk should be one of the highest priorities. Mountain pine beetle numbers are significantly increasing throughout the BHNF. We strongly support treating more than the 46 to 50 % of the acreage planned in these relatively high risk MPB stands. We have repeatedly warned the USFS, that trying to maintain too much of the forest in 3C and 4C structural stages is asking trouble from wildfire and mountain pine beetles. It is painfully obvious from all of the large wildfires and insect infestations that have occurred over the last several years that our concerns were and are warranted.

Sincerely,

Bill Coburn
Chairman, Lawrence County Timber Advisory Committee

Pam Brown, USFS
District Ranger
Spearfish SD 57783

May 29, 2003

Dear Miss Brown,

I am a grazing permittee whose entire grazing allotment is in the Power Vegetation Area. I support the objectives you are trying to accomplish with the Proposed Alternative but would like for you to consider the following comments.

Vegetative Action

I have no forestry experience and don't understand what 50-80 basel area/acre actually looks like, but it seems to me that the area in the North half of Section 13 is very thick. Much of the denseness of this area is do to Spruce trees. They are thick enough so as not to allow very much sunlight to the ground and is allowing few new trees to get started. I was expecting this area to be addressed.

Road Improvement

I generally don't favor having roads in the forest. But if we need to have them let's have good ones. I hope the 7 miles of reconstruction include putting gravel on the ungraveled portions of FS 117.7 in section 26 and also FS 554.1.

Road Closures

I am very supportive of closing 32 miles of system and non-system roads. Hopefully this can be done in such a way that the barricades are not simply driven around and avoided. I feel that 232 in Section 18 needs to be closed. This road is accessible from the private land in Section 13 and if it is not closed here, enforcing closure on the rest of 232.2 and NS 16 will be very difficult. Also a private landowner uses part of 117.7J and NS 44 to access his land. Closing these roads in such a place to allow his access wouldn't take much adjustment to your plans.

Slash Piles

Table 4 of the monitoring plan lists a responsible party for noxious weed inspection and prevention but I saw no responsible party for seeing that the piles are burned. Not getting the piles burned has been a problem in the area on past timber sales and I would like to see a plan on making sure these get burned.

Water Yield

From what I have seen on the past timber sales, to make a difference in water yield you don't have to substantially reduce the tree cover. Thinning the hillsides above springs and still staying within your basel area guidelines would increase the amount of water for wildlife and cattle. I would agree that to make a huge impact in water yield, large amounts of cover would have to be removed, but even a small difference in water yield can benefit pasture management on a grazing allotment. On a four month grazing season, having one more week of water in a particular pasture can make a big difference in the forage utilization in other pastures. Not to mention the benefits of improved distribution of the livestock. With the regularity of the timber sales in this area, a reduced amount of forest cover could be maintained and the transitory effects diminished.

I hope that my comments are helpful and well received. I appreciate the opportunity to have input on the project and to be involved.

Sincerely,

Eric Jennings